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THE FARMER AND PLANTER.

Devoted to Agriculture, Horticulture, Domestic and Rural Economy.

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Plantation and Farm Stock.

That a well regulated system of economy, strictly adhered to, is the great secret of agricultural success, none will attempt to deny; and that that system by which the planter is enabled to live within his own means, that is, raise his own supplies, especially his own stock, is self-evident.

Nothing draws so heavily upon the farmer as the continual purchase of horses and mules to supply his farm, and nothing more effectually impoverishes a country than such a heavy drain upon its money market.

It is to the farmer's interest to raise his own horses and mules as far as convenient, because, apart from other considerations, those raised at home are much more valuable than those purchased of stock drivers.

Horses and mules raised in the South are more valuable than those raised in Kentucky and Tennessee; first because being raised in the South, they do not have to pass the ordeal of acclimation, which results in permanent injury to the animals eyes or constitution.

The second advantage of home raised horses over foreign, is that those driven to our state are raised especially for market, and the sooner they are disposed of the better for the stock raiser; consequently they are "pushed" from the hour of foaling until they are ready for market, and, as a matter of course, are much less valuable than if permitted to grow more slowly.

Mules are generally put to work at two years old, and horses at three, which is, as a general rule, two years too early, though in some instances, if put to moderate work earlier, they will not be materially injured. This steam and lightning speed with which we are endeavoring to accomplish everything we undertake is suicidal to the farming interest.

As it is clear that southern planters can, with but little actual expense, raise a large supply of their farm stock, and that it is worth from twenty to thirty per cent. more than when

brought from a different climate, it is beyond a doubt, very bad economy to depend upon foreign stock raisers.

As much of the value of the horse depends on his health, and as the hurried growth of horses, now so common, subjects them to a variety of diseases, it is a matter of no small importance with the farmer to be able to arrest those diseases which he cannot prevent.

By proper care in good airy stables, especially at night, with suitable food many horses may be saved from disease and death; while a want of attention to these will result in great losses.

To this it is objected: "That brutes are adapted to the vicissitudes of weather, and consequently they will be healthier if exposed than if well stabled." I will only say as a sufficient refutation of this reckless notion that the horse and all other wild animals, in their native freedom, shelter from rain, snow and cold in the thick forests, and although in day time and fair weather he prefers to feed in the prairie, yet at the approach of night or foul weather he hastens to thick woods. Who does not know that he is much more comfortable beneath the heavy foliage of forest trees than in an open lot.

Blind Staggers, so called, but properly inflammation of the brain, I have no doubt, is entirely the result of exposure, though many persons suppose it to originate from the use of chaffy corn. My reasons for ascribing this dreadful disease to exposure, are the following:

1. But few horses kept in warm stables during winter and spring ever die with blind staggers.
2. Stage horses, though driven hard through rain, hail and snow, are seldom attacked with this fatal disease, because on reaching the stand they are put in stalls and well rubbed.
3. In most cases where this disease has made its appearance, it has been when the horses have stood in open lots or have been driven hard all day and exposed at night. One instance:

A gentleman of my acquaintance, last winter went to market; on returning he drove unusually hard through the day, which was succeeded by a dreadful night; he had reached home but a few days when he lost two of his horses with this disease. Other instances might be related.

[Alabama Planter.]

The Best Kind of Mules.

When mules are selling at from 300 to 500 dollars per pair, the following taken from the Banner, Nashville, may be read with interest and profit.—Eds.

The mule is the great field laborer in the commanding staples of the South, cotton, sugar, and rice; and as he is one of the annual exports of Tennessee, and as he will continue to be so, he is destined to hold even a higher position than heretofore among the live stock of the State.—Jacks of excessive heavy bone, or improper pampering, are generally lazy, or soon become so by labor, and become very slow; their driver may force them on, but in a few steps they take their slow natural steps again. Such mules, therefore, are almost worthless, and should not be bred if it can be avoided. The most perfect mules are not to be expected from the excessively large, coarse-boned jacks, or excessive high feeding, but from the laws of nature carried out to the

greatest extent by skillful breeding and feeding.

An error has existed for many years, and still exists concerning the size of mules. Size has been made a measure of value in the mule, almost regardless of form and spirit, and so it has been with their sire, the jack.

I have been employing mule teams for twenty-five years in the cultivation of cotton in Mississippi, and my team now numbers one hundred. In this time, I have used every variety of the mule (except the most inferior kind) that has ever been grown.

At the commencement of planting operations, I adopted the prevalent error, the size was the measure of value, and pursued it for many years, much to my prejudice. By long trial, and by comparing the relative performances and lastingness of the large team which I have used, aided by observation and reflection, I am fully satisfied that the medium sized mule full of spirit and action, with a neat firm leg and a round body, with his levers set right for easy motion, his head and ears up, ready to move at the word, is the animal of most value of this kind.

The laws of nature cannot be violated with impunity. The jack when grown within scope of these laws, is a small animal. The mule a medium between the jack and horse. Both the jack and mule by a hot bed growth may be forced to be large animals. But in this forcing process, now more extensively pursued by Kentucky than any other state, what has been gained and what lost?

They have gained large, bone, coarse animals of large size, and at an early age full of defects, and soon ready to decay, because subject to disease and large consumers of food.

They have lost symmetry, spirit, action, lasting endurance, and permanent value.

The farmers of Kentucky seem not to have taken a proper distinction between animals intended for active labor and those intended for the slaughter pen.

The error that I especially aim at, is the abandonment of almost everything else for size. The best combination of the requisite qualities in the mule is not found in the production of a hot-bed policy, which by constant feeding, with everything that will hasten growth, brings out a large, coarse, forced, over-grown, awkward animal, who decays as fast as he has been grown. If he were intended for the slaughter pen, this method of growing is correct, but when he is designed for the valleys of the southern rivers, where his service was active and his rations not very select, he wants more game, more spirit and action, more symmetry, and not too much size. Hence, our Tennessee mules, the produce of spirited jacks, are really more valuable to the southern planters than the produce of Kentucky under her present system.

This no doubt to some extent is the fault of the purchasers South, who have not generally discovered their error. They demand large sizes, and pay in proportion to size; and this in part, explains the policy of Kentucky. My opinion is, that size in a mule is nothing after they reach fifteen hands high, and many under that height come up to the standard value, fitted for cotton plantations.

When compared to the blood horse, the mule is unfit for the saddle, pleasure carriage, or any harness requiring rapid motion. His sire is an animal of slothful tendencies, of slow motion generally, and hence the necessity of improving this quality in the jack. Give him spirit and action, and stamina rather than great height.—One conforms to the laws of nature, and the other violates them.

The Spanish and Maltese jacks have spirit generally, and for that reason are valuable as a cross; but they come to us without stamina, and with a contracted chest. These faults must be remedied by a proper crossing before they will produce the mule best suited for the malaria districts of the southern rivers.

It is our policy to grow the mule that will prove to be the most valuable to the cultivators of the South, and rely upon their following their interest when explained to them; and proven upon trial to be true.

What I have learned upon this subject is not from hearsay. I have purchased and grown all the mules which I have driven for twenty-five years in Mississippi. I have had an opportunity of knowing what they have done, and these opinions are the result of experience. This knowledge would have been of service to me in the commencement of my business, and I communicate it for the benefit of those who may adopt my opinion hereafter.

MARK R. COCKRILL.

Nashville, Tenn. 1854.

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SICK HOGS.—Messrs. Editors: I saw in a late *Cultivator*, an inquiry by Mr. Snow, for a remedy for lame hogs, and would say to him, I had a breeding sow last spring, which, when she had gone about one-quarter of her time, was taken very much as his were. I had seen bone dust recommended in the *Cultivator* some time before, and therefore took beef bones, burnt them and pounded them fine, and put two table spoonfuls of the dust, one of flour of sulphur, and a little wood-ashes, in her feed, which completely cured my hog, which brought me as fine a litter of pigs as ever I raised, obtaining for them the first premium at the last agricultural Fair, held at Providence, R. I.

WARWICK.

Wintering Stock.

The present high prices of hay, corn, oats, potatoes, &c., makes it now, more than usual, a "matter of dollars and cents," in feeding our domestic animals through the winter. Every farmer, therefore, should exercise a strict economy, but not a niggardly one, in feeding out his winter forage to his cattle, sheep, and horses.—It will not do to trust too much in this matter, to the boys, however faithful and trusty they may be. They may lack in judgment. They may feed too much or too little, and yet mean to do right. It is all very well and proper, to instruct them in every branch of business connected with the operations of the farm. But where so much is depending upon judgment and experience, as there is in the winter management of our farm stock, it will not do to let the boys, in this matter, go wholly upon their "own hook."

It is misspent time and money for the farmer to toil and sweat in the heat of the summer in gathering his hay into the barn, to have it wasted in the cold of winter, for lack of care and judgment in feeding it out.—It is poor economy for a farmer to keep more stock than he can keep well. Experience, a good instructor, teaches us that full feed and warm stables is the best economy for the farmer, and the less cattle are exposed to severe cold and driving storms of snow or rain, the better for the comfort and well-being of the cattle, and the interests of their owner.

We are aware, that many differ from this, both practically and theoretically; therefore, they turn their cattle from the hovel, early in the morning, to remain in the yard through the day, let the weather be ever so cold or stormy, and at night, tie them up in a cold comfortable hovel to sleep, if sleep they can, upon the hard plank floor, with little or no bedding. This course they pursue, from the mistaken idea, that it will toughen their cattle, and render them more hardy—beside, they say it gives them a better appetite for eating meadow hay and rye straw. This, we will not dispute, because it is a practical fact, and the "why and the wherefore" of it, can be correctly accounted for on physiological principles. Upon this, we may have something to say in a future paper.

Much of the profits of rearing cattle depends upon the manner of keeping them thro' the winter. If they are suffered to loose flesh during the cold season, and turned out to pasture "spring-poor," it takes a long time to regain what they have lost. With the best quality of early cut, and well made English hay, with regular and judicious feeding, and comfortable quarters, a stock of cattle, from the oldest to the youngest, may be made to thrive all winter; to gain in size and flesh, and with a small allowance of meal, potatoes, turnips, or other roots, they would still do better.

Our horses, cattle, and sheep, were originally constituted to subsist the year round on green and succulent food.

By domestication, they have been gradually introduced from a warm, to the cold climate of the north, where, as with us, they generally have to be fed on dry forage for six months, or more every year. This, in some degree, is placing them in an unnatural condition, and it seems to us, it is a very strong argument in favor of a more extensive root culture among us, for feeding purposes.

Most farmers have more or less coarse fodder, such as poor hay, corn fodder, straw, &c. And many commence feeding their cattle exclusively upon these the first part of the winter, or till it is used up, and seem to think it is a "good riddance of bad rubbish." Cattle and sheep, doubtless, like a change of food as well as man, and when kept in good condition, they seem to relish a foddering of meadow hay, corn-fodder, or straw occasionally;—but if fed entirely on such fodder the first half of the winter, they lose flesh, and will be apt to come out in the spring in poor condition, in spite of English hay.

Corn-fodder is as nutritious as common stack hay, when fed in connection with it, but to compel cattle to live on such fare for weeks together,

is, as some one has said, "absolutely cruel, as it makes their teeth sore when fed for a length of time." A better way is, to give cattle one foddering a day of corn butts, and that at the last feeding at night, and if they have a pretty stout allowance given them, they will eat it nearly clean before morning—at least, what they reject, will hardly pay for passing through the "straw cutter." By the way, we intended to have said something upon cutting fodder for "common farm stock." But "Ploughboy," in the *Granite Farmer* of the 21st of December, has an article on Hay Cutters, that expresses our views quite plainly—one word more, and we close. Cattle, to do well, must have drink as well as food; and a free use of card and brush, add to their good looks.

L. B.

Inferential Analyses.

We have often spoken of the importance of knowing the condition of soils, and have recommended, under certain circumstances, a careful chemical analysis.

We have also described modes in which the general character of the soil may be ascertained, without these expensive processes. Thus, we have referred in this connection to the character of the spontaneous growth of the soil, that is, the variety of the weeds which infest it; and we have explained a mode of ascertaining the presence of various elements by washing the soil, &c.

Reference has also been made to the character of the crops it has produced, as a fact of great importance in deciding in what elements it must now be deficient. We purpose a few additional suggestions, with some minuteness of detail, as to the use to be made of such facts.

We must, however, in this case, as in former ones, bear constantly in mind that the original condition of the soil will often in respect to one or more of these elements, essentially modify and change the result at which we would arrive. On a "silicious soil," for example, it is impossible to exhaust the siliceous element by any growth that can be cultivated. This element forms so large a portion of the whole body of "earth" in many cases, that to exhaust that element would be to use up entire "solid" feet of earth, leaving a void obvious to the sight, and changing the whole appearance of the field. On the other hand, clays are often, and, indeed, usually furnished so sparingly with siliceous matter, that it must be furnished from abroad, while the alumina is practically inexhaustible. A mere glance at some table like that exhibited on pages 23 and 100 of our numbers for July and August, vol. 5, will indicate what those elements are, in the soil in question, which may always be presumed to be present.

It obviously follows from these suggestions, that any specific instruction as to the probable absence of given elements, after certain oft-repeated crops are removed from it, must be taken as applicable to soils that are originally alike abundant in all required elements; and, at the same time, it is obvious that in fact, there is a small number of elements that seldom are found in excess; and repeated croppings, which make

large demands on those elements, will leave the soil practically destitute of them.

One further remark, by way of limitation, in explanation, is of paramount importance. Any element, siliceous, or almost any thing else, may exist in large quantities, but in an insoluble form. To dissolve siliceous matter to a very limited extent, it is now ascertained, water only is necessary; but to obtain it in solution to the extent often required, it is necessary to supply some other solvent. Here, of course, there is more necessity of science than in any other department of the subject.

We are thus prepared the better to appreciate the following suggestions: If we examine the straw of wheat, we find it composed of common vegetable matter—oxygen, hydrogen, and carbon, with a small quantity of carbonate of lime; so, if we examine the constituents of the grain, we find them distinguished into starch and gluten; the elements of the starch are the same with those of common vegetable matters; but the elements of gluten are analogous to those of animals, or in addition to oxygen, hydrogen, and carbon, there is also nitrogen. The production of this nitrogen cannot be effected by common vegetable matter, and the manure employed in the production of the straw and starch cannot produce the gluten. That the gluten of wheat-flour may always be present, it is necessary that a quantity of animal substance should exist in the manure to be applied to the wheat crop. If we pursue our investigations a step farther, we find that phosphate of lime is as constant a constituent of wheat as gluten. In barley, instead of phosphate of lime, there is a small quantity of either nitrate of soda or nitrate of potassa, (saltpetre); hence those salts should be present in the soil where barley is to be grown. The ashes of bean-straw always yield a large quantity of a carbonate of potash. A considerable quantity of super-oxalate of lime in the pea crop has been discovered. Clover contains a notable quantity of gypsum, &c., &c.

Wheat, oats, barley, and other cereals, make large drafts on the phosphoric acid and the potash, soda, and magnesia of the soil. Hence, if repeated crops of either of these grains are taken from it, these elements must be supplied in the manure, or the land will become barren.

The following table shows the actual and comparative demands which certain crops make upon lime:

20 bushels of wheat consume	13 lbs.
20 " " barley " "	8½ "
20 " " oats " "	28 "
20 tons turnips " "	118 "
8 " " potatoes " "	40 "
2 " " red clover " "	77 "

Hence, it is obvious that when these and like crops are grown, in successive seasons, lime must be supplied from abroad.

There is one important fact, by the way, in reference to lime, which it becomes us here to notice. It is found that in process of time, lime sinks into the earth, and must be brought to the surface by deep ploughing. This effect is occasioned by the rains and melting snows, in which it is dissolved, which are absorbed by the earth, and which carry the lime, in a state of solution,

along with them into the sub-soil.

If a soil is overlimed, it will not produce good crops; though even then, turnips and barley thrive well upon it. But if guano or the superphosphates are supplied too liberally, turnips acquire a very large size at the expense of quality. They are then liable to early decay. This arises from the fact that they contain an excess of water.—Turnips are cultivated more successfully in a light than in a strong soil.

—ofofo—

Culture of the Vine.

We may now reasonably infer from what has been already stated, that the Southern Planters are greatly encouraged and stimulated to undertake this new culture, though it will take several years before the capabilities and fair productiveness of their vineyards may be fully developed. But once the yield is obtained with proper management, the hard work is done, at least for fifty, or even more years.

I again repeat, that the site or locality of the vineyard, calls for the most judicious attention, and truly deserves the most mature consideration; for if an improper selection be made, it is in vain we labor and toil; disappointment will necessarily follow. We should not disregard the advantages of the minutest details, when fairly at command and not too expensive. We must here remark, that the European methods of cultivation must be with us judiciously modified to suit our climate, and none can be implicitly copied by us. But still prudence will dictate the selection of such exposure and locality as shall combine all or many of the advantages which I have already mentioned.

The vine is indigenous to our country. It was not so even to Italy and France. It was brought there from Asia. In the introduction of a rational method of cultivation, we will have to follow somewhat the causes that influence the too luxuriant natural growth of our vines, and allow them to spread more than is done in Europe, in order that they may shade themselves and fruit from the scorching sun of our Southern climate.

The introduction of the European varieties, present many difficulties; though not impossibilities, as some *would-be-wise*, have stereotyped. It can only be obtained by a long, tardy, and laborious process of acclimation. My experience in this respect confirms that of the Swiss Vignerons. The imported stock may refuse to yield fruit of any great value; but the cutting from it will do better, and the cutting from this last still better, and so on, till the woody fibres of the vine become hardened, and its circulation identified more and more with that of our native vines. This is a long, tedious and expensive process, that I would not recommend to any one, especially to Americans. It would not suit the mercurial temperament of our agricultural community, who prefer a quick return for all their investments. To them, the prospect of immediate gain is the great incentive to action; but I can assure them that the cultivation of the Vine, as I shall set the example, and its patient, fostering protection, will richly repay them, and gratify their honest and just wishes for a plentiful return for time lost.

One thing must not be overlooked—as it may

regard the individual as well as the State,—that all such lands that now are nearly valueless, when converted into vineyards, will increase one thousand fold in value; and that lands with the necessary capabilities for vineyards, will augment in value in the same proportion. Such lands, in France, planted in Vines, could not be purchased for \$4000 per acre, while here such an acre could be got for from \$1 to \$5.

Another fact may be here stated—that the white European varieties are much more easily naturalized than the red. This may appear strange; but it is so, and the experience of other countries confirms my observation.

We are all aware that the Vine is indigenous to our country—and that it ought to be cultivated extensively for making Wine. A less congenial climate to the Vine than ours—Ohio—has set the example, and the dollars are rolling back up the Ohio to Cincinnati, to reward them for their industry, while we, with more congenial climate and soil to the Vine, remain mere lookers on; and we are tributary to foreign countries for a commodity that we ought to export.

I fear that there is, already, with many of us, a fondness for ease, and like the Italians, because we possess a more fertile and genial climate, we are less disposed to labor, while the Swiss, with his unpropitious country, toils faithfully in the vineyard. Italy is the garden of Europe, and the rich exuberance of her vegetable kingdom, entitles her to that appellation. Nature has been prodigal of her bounty to that favored and classic land, and so has she been with us; and wherever that is the case, man is studious of the *dolce far niente*.

Most of my European varieties have already undergone this tedious process of acclimation, and the cuttings from them are vastly more valuable than the original stock, that have already a tendency to decay. This improving tendency of acclimation is, I think not as yet complete, but the next two generations will do it, and then I shall offer them for sale with confidence of success.

I have stated in former communications in the "Mercury," the most reliable vines for us, for making Wine will be the Scuppernon and its varieties, the Catawba and Black native, all excellent of their kind. These kinds I shall have for sale in the fall of 1855, when I shall so publish it. My Scuppernon has undergone a cultivation and an education that has improved already its uniform maturity, and the clusters are larger and have more berries than this vine generally yields.—*Char. Mercury.* J. TOGNO.

GUANO.—"Guano has been used for agricultural purposes in Peru ever since the invasion of the Spaniards, and there are good grounds for believing that its use was known to the Indians long anterior to that period. It is now chiefly applied there in the cultivation of maize and potatoes, and large quantities of it are consumed in the haciendas that skirt the banks of the rivers which flow from the mountains through the deserts, raising in their passage through the arid sand ocean, long green islands of extraordinary fertility. The mode of applying the manure differs considerably from that adopted with us." It

is never used with the seed, but when the plants are a few inches above the surface, a long shallow trench is made close to the roots, and in this a small quantity of the guano is placed, the white being always preferred. The trench being laid completely under water, by dams and sluices erected for the purpose, or where no such system of irrigation exists, other means are adopted for thoroughly saturating the soil. The potatoes by this mode of culture are, perhaps, the finest, both for size and quality in the world, and the extraordinary rapidity of the growth, after the application of the manure is most astonishing."—*Charleston Mercury*.

How to Use the Hoe in the Garden.

There are those who think that if a working hand is too stupid for anything else, he can hoe in the garden. They labor under a great mistake. There is no branch of farm or horticultural work that requires as much judgment and skill, as the proper use of the hoe in the garden. A garden worker, be he black or white, that has no knowledge of the roots of plants, and their functions, has no more business with a hoe in his hand in the garden, than has "the old black sow," with her nose in the Tulip bed. Is there a young melon, squash or cucumber to hoe around, he strikes in with a plantation hoe, the blade of which is six inches broad. The hill is left clean, the soil is light, but from the ignorance of the worker of the nature of the roots, how they thread the ground in all directions, in search of food, the broad blade of the hoe has cut every fibre of root but the tap root, the plant lingers along in a sickly condition, and the proprietor concludes his soil does not suit melons and cucumbers, and so with all the young crops. The worker should consider what he is hoeing for. If it is to mutilate the roots, he is doing right to hold the hoe so as that each stroke the blade is buried in the earth, under the plant, the eye coming in close contact with the stem. But if he would preserve the roots to draw nourishment to perfect the plant, he will hold the hoe so that the blade does not go under the plant, and only go as deep as is necessary to break the surface in the immediate vicinity. Gardeners you should tell your servants the Fable of the Bear and the Fly; how in his efforts to kill the fly, he killed his master.—*Soil of the South*.

Applying Guano to Corn.

The question is often asked, how is guano to be applied to corn ground? Experience is the best teacher. I have tried it in various ways, and am fully satisfied that the greatest amount of corn can be raised by sowing the guano broadcast, at the rate of two hundred pounds to the acre on poor soils, and 250 on rich. It ought to be sowed on the land after the first spring plowing, before harrowing, as the harrow will cover up nearly all the guano and mix it with the soil. Nothing is to be mixed with the guano, neither salt, ashes, lime, nor plaster. I once destroyed a wheat field by mixing lime and ashes with guano. I am satisfied of this, from the fact that I sowed one piece of land with pure guano and it brought wheat 75 per cent. better than the mixed lands.

Guano applied as above will increase the corn crop, other things being equal, from 30 to 40 per cent. Put on guano, it will pay, and may well, especially if the season should be a dry one like last summer. My guano corn stood the drought bravely and yielded well. Artificial guano can be made by taking equal portions of hen droppings, lime, ashes and plaster. This composition can be dropped on the hills before planting the corn, and in poor soil will accomplish wonders. Try it.

As grain of all kinds is so high, and with the prospects of a foreign war not likely to come down much, every farmer should put out large summer crops, and if his land is not strong enough, let him apply that which will impart strength.

A CLERICAL FARMER.

Dollar Newspaper.]

Evaporation of Manures.

MR. EDITOR:—I observe in your excellent paper of the 15th, two very contradictory opinions on the evaporation of manures. One from Mr. Emerson, of Hollis, the other from Mr. Shattuck, of Bedford. Mr. Emerson is of opinion that no fertilizing principle is lost by evaporation. That all these principles descend into the ground. Mr. Shattuck says, "suppose that we get a given amount, say 100 pounds of fresh excrement from the horse. This is exposed to the action of heat and moisture; it may be spread on the surface of a plowed field. Will this power of dissociation that has been impressed upon it by the *catalysis* of life, be *arrested*, until all of its volatile salts have been blown away?" But here an interesting question arises. If manure is volatile, and upon being deposited on or near the surface, takes to itself wings and flies away, how are the probable results to be accounted for, whose practice it is, never to turn the manure under with the plow, but to leave it on or near the top of the ground. I believe a solution of it may be found in the fertility of their soil, rather than in the idea that manure inclines downward."

For a reply to Mr. Emerson's statement, he may be referred to the testimony of his own nose. Can he approach any pile of excrement, any decaying carcass, or any fermenting or rotten vegetable matter, without being informed by that organ that a very undue and unusual portion of volatile matter is passing from these sources into the air? Does he know that these emanations consist principally of phosphureted, sulphureted, carbureted hydrogen, carbonic acid gas and ammonia; and are not phosphorus sulphur, carbon, hydrogen, oxygen and nitrogen, the radicals of these compounds, elementary constituents of vegetable growth, and ranked among fertilizing principles? Yet, while they are thus, in a manner one would think most convincing, escaping into the atmosphere under his nose, he gives it as his opinion, "that no fertilizing principle is lost by evaporation!" Farther he is said to have stated, "that if a portion of manure should be saturated with water twenty times, and allowed to evaporate in the hot sun, the same manure placed in a hill of corn would grow the corn equally well as a like proportion of manure not subjected to the process." Has he ever

tried the process fairly? We will state the mode. Let him take a fair measured half-peck of manure, and subject it to the process, and when it is fairly completed, let him plant with it a hill of corn, planting a little distance, in the same soil, a hill of corn with an equal quantity of fresh manure well mixed and covered in with the soil, so that evaporation may be as much as possible prevented. Without putting any additional manure, but merely loosening thoroughly, and mellowing the ground with a fork, let him plant a hill of corn on each of these spots for five successive years, tilling each hill with the like care, and keeping accurate account each year, by weight of the produce of each hill and at the end of that time, summing up the separate results, he will find out how much he has erred in his opinion, and possibly, *how* he has erred. If not, we will then explain it to him.

For an answer to Mr. Shattuck, we will refer him to the nearest pasture. Let him go into it about the last of May or the beginning of June, and he will doubtless, with a little careful looking about him, find various spots where the grass is unusually thick, tall and strong around places on which reposed a pile of the droppings of the cattle last year, or on places where urine was voided. Evaporation has been going on ever since, yet here is abundant evidence, that all the fertilizing principles have not escaped into the air to be blown away in the currents. The rains have fallen, and the snows have dissolved upon these excretions, and leaching through them have imbibed the nascent gases, and dissolved the fertilizing salts, and carried them down with them into the earth, where they have acted upon the roots of the grass, and added their stores to its growth. Even without rain, some effect will be produced, if the earth be moist. The volatile principles of the manure are, some of them at least, readily absorbed by moisture, and that of the earth will thus imbibe a portion from the fermenting and decomposing mass with which it is in contact, and will diffuse it for some little distance around, on the principle of solution. Ammonia in particular, is strongly attracted by water. So too, the soluble salts dissolved in the moisture of the fermenting excrement are imparted to the moisture of the ground underneath and around it. Thus, while a part is lost, a part remains, in this way.

That it is a good practice however, to expose manure on the surface, is hard to be maintained, and those habitually doing it have hardly a claim to be ranked among the "best farmers." They may farm successfully in the main, but still not so successfully as they might with a better economy of their resources. Though now and then under particular circumstances, a top dressing of manure may answer a valuable purpose, still the full benefit that the manure could have yielded, is not received.

Farmer & Visitor.]

For the Farmer and Planter.

Dog Law---Rust on Cotton, &c.

MESSRS. EDITORS:—I have been a constant reader of your valuable journal for one year—have seen communications from different writers upon various subjects, but have now for the first

time in my life nibbed my quill to write a communication to an editor. By the way, what shall I write? I have but little experience in farming, (not withstanding that has been my occupation ever since I was able to make a *tater-hill*),—always followed the direction of *boss*, hence I have no experiments of my own to give. A fool's bow, however, is soon shot, and the sooner I begin, the sooner I will get through.—Much has been said of late about dogs, reducing the number, taxing them, &c. J. D. W. it seems has been much annoyed of late by the barking of his neighbors dogs (wonder if he has any), and has thus been devising plans by which to rid the country of so great a curse, and by nice mathematical calculations, brings the subject so clear to the people as to make them the willing instruments, to effect so great an object. But who would kill a favorite dog simply because his Captain says so? Ask that old foggy over the way to kill one or two of his favorite dogs, that have long been a fence to his farm and a bolt to his corn house. Think you he will do it? No, sir! As soon might you think of turning the current of the Nile with rushes, as to persuade him to it. He would rather pay tax for them than split rails and make a substantial fence around his farm. Notwithstanding the importance of the dog law question, I cannot think with J. D. W., that our would-be smart men, as he calls them, should drop so grave and important subjects as the penitentiary, giving the election of President to the people, and especially that of the prohibitory liquor law, for the small question of whether a man shall kill his dog or pay tax for him. Besides J. D. W. may find a use for a penitentiary yet, before he gets the dog question settled, and I am sure if he will now have recourse to his figures again, and compute the amount of corn consumed by the distilleries of his district, and the country at large, amount expended in whiskey drinking, he will find it far exceeds that of the canine race; and when both these are added together, well may the cry of lamentation be raised by mother Carolina, for the loss of so many of her gifted sons and daughters.

RUST ON COTTON, &c.,—J. D. W. asks some plan to prevent rust on cotton. As I said in the outset, I have but little experience in farming of my own, yet I have made some observations of my own, for which I do not feel indebted to any one. So far as my observations extend, rust is apt to begin in those places most infested with weeds and briars, about old trees, stumps, corners of the fences, &c. If then, rust is the effect of these things left growing, it is easy to see how it may be prevented—by removing the cause. This, sir, has been my observation, yet I cannot say how it is with our friend J. D. W., for I have never seen his farm to know it.

PORK.—When I saw his statement of raising pork which cost nothing, I was delighted with the idea, and read the remainder of his article with great interest. But to my chagrin I found that he had been feeding upon oats, fruit, roasting ears, &c., for five months, yet, cost nothing.—Well the cost to raise one in that way may be comparatively small, yet, if J. D. W. were to attempt raising all his pork in that way it seems to

me the cost would be very perceptible, so I closed the article with a disappointed sigh, and said that my pigs would have to root a little longer.

Messrs. Editors, I have just killed some hogs for bacon which I call good pork, and which I think has cost as little as any I ever killed.—They were about 15 months old I suppose, and raised in the usual way, by rooting with an occasional feed of refused corn during the winter, until I put them up in a close pen to make my meat. Having a fine crop of turnips and a small one of corn, I ground my corn and mixed it with turnips well cooked, and thus made a kind of dough, which my hogs eat very freely, and improved as fast as any I ever fed. I took no notice however of the weight of the hogs before I commenced feeding, nor the quantity of feed to the hog. But I found a great saving of corn; and when I killed, my hogs were too heavy for any weights I had to weigh them with, so I have no statistics to make in the pork line.—Yet it all costs something. But seeing the space I have taken up, and not knowing whether you will regard this worthy of a place in your paper or not, I am admonished to close for the present.

Respectfully, yours, F. B.

For the Farmer and Planter.

Educate your Daughters.

MESSRS. EDITORS:—That short extract from Missionary life among the Indians, on page 263, should be printed in caps in every paper of America, and every father and mother should read it, and ask each other—does it apply to us?

To my Carolina brothers, to my Carolina sisters, I say read that short extract and look around you—look to it with the eye of an American, who should ever desire to see our loved country fill its high destiny—for I believe it is the Israel of our God, destined to do more to redeem man than all earth beside. For Carolina I feel all the love of a son to a fond, dear parent. I would have her take her stand among the eminent of earth, and to be even in that company pre-eminent. For this, my home, I would labor with all my might, and would place her first, and then my own, my native land.

Were I called upon this day to say what would best secure to America the proudest niche in the world's history, and what would hasten most rapidly to the long hoped for time—the people of earth at peace and the mighty sovereign to reign over the hearts of all his people, I would answer in the language of Madam Compar. Napoleon once asked Madam Compar what the French nation most wanted—her reply was compressed into one word: "Mothers." Oh, sirs, give us *"intelligent, earnest, pious mothers,"* and our country would soon throw off the shackles of man-power, whether shown in parties, creeds, disciplines, princes, popes or potentates. But sirs these must be all of *"intelligent, pious, earnest mothers."*

We must change our policy, our principles, our hopes. We must not call a woman an old maid because she is single at 20 or 22. We must raise the grade of our schools—the curriculum of a female college should equal that of a male. A good solid education should be given. Leave the frivolities of what is termed a

finished education, to the be-whiskered, be-ringed, and be-ruffled part of our race, and give to American mothers, that education which will fit them to rear the future leaders of earth.

Let us look for one moment at some of our friends, and see if there be any difference between men, and that due to educated woman.

Do you recognize our friend John S., who you remember was, and but a few years since, ignorant and clownish?—see him now, a subscriber and reader of two or three newspapers, and can make himself agreeable in company. Why is this? He married an educated woman.

And there is Andrew M., who was a few years ago a reader, and can quote the poets and standard writers, can recur to his college days without shame, yet marrying a woman who was pretty but without education, he has ceased from improving his mind, and his children are "following in the footsteps of their illustrious predecessor." He read more in 12 months before he was married than he has for the last six years.

And there is that fine fellow Robert W., with his fine intellectual face. He has his second wife. His first wife was rather pretty and rather ignorant, cared only for property. His second wife has intellect, love for books—she has imbued her children and those of her husband by the first wife with the spirit of reading—the husband follows suit, and is quite the ablest man near him—acquired since his last marriage, for I knew him all the time.

I could thus point out instances, and thus verify the remarks of the Missionary, which you quoted.

This matter is not a new thing. It has occupied much thought and anxiety, believing as I do, that to educate the masses, is but fitting them for greater usefulness in church or state.

Had I wealth, had I influence of family, influence of talent, I would devote one and all to the object of changing the present order of things, viz: postpone marrying till girls are 20; place not so much value on the mere accomplishments of female education; make woman fitted for mothers, advisors, counsellors and trainers of youth; and have mothers to instruct their daughters in all household economy. This done, and our beloved south in two generations would lead in all good and great works. May it be so, is the wish of your friend.

M.
Hindes, Miss. Nov., '54

For the Farmer and Planter.

The Peach Tree Borer.

MESSRS. EDITORS:—It is desirable to destroy all insects that infest fruit trees, especially the one at the head of this article. And this end is easily attained—if we are to give credence to all the remedies recommended for that purpose, there are as many plans to effect this object; as there are cures for the tooth-ache. They are applied with about the same success—unless the same remedy is used in both cases, viz: extraction, which is the only effectual one.

My purpose is to give only such remedies as I have tried, with my observations and experience on the same. But before doing this, it is perhaps necessary to give some account of the pa-

rent insect—a slender, dark-blue, four-winged fly, resembling a wasp. Downing's work on Fruit and Fruit Trees, states that this insect commences depositing its eggs in the tender bark of the tree, at the surface of the ground the last of June. I think it makes its appearance at the South sooner, and continues its operations until October. The egg hatches and produces the borer, which penetrates and devours the bark and sap wood encircling the tree, which causes its destruction. The insect continues in the tree during winter, forms its cocoon, and comes out in the spring in its winged form, and commences depositing its eggs for another generation. I have taken the cocoon and kept it until it assumed the winged state.

THE REMEDIES I HAVE TRIED.—No. 1. Downing, and others, recommend forming low heads; this is done by topping trees when small, which causes them to branch out near the ground—this shades and keeps the ground moist and cool, thereby preventing the attacks of insects, &c.

No. 2. By driving nails in the roots—which with the sap of the tree forms a salt of iron, thought to be destructive of the borer.

3. Downing recommends a peck of air slacked lime or leached ashes to each tree.

4. The manual operation, viz: extracting.

5. The prevention. This is done by raising hillocks around the tree before the parent insect makes its appearance, and removing them at the commencement of cold weather.

OBSERVATIONS ON THE REMEDIES.—No. 1. is objectionable on account of the roots being shaded and kept moist, this makes the bark more tender about the roots—thereby rendering it more susceptible to the attacks of insects. The first trees I set out, I pursued the course of low heads. By this method the limbs are so near the ground that it makes it very inconvenient to apply remedy No. 4, which is essential, and will be described in its order. All trees which I have set out recently, I have trimmed to four or five feet. This pruning should not all be done at one time, as it will cause the tree to grow so slender that it will not be able to sustain the top. Limbs ought to be left along the stock for the purpose of diverting the sap, which will have a tendency to give strength and a gradual slope to the stock. As soon as this object is attained, the limbs should be cut close and smooth from the trunk; by this course with the shortening in process, a handsome tree may be formed.

2. Failed entirely—besides causing wounds from which the gum oozed out, injuring the tree.

3. Also failed. I have applied both ashes and lime to my trees, and find that the worm will work even among these substances (the opinion of Downing and others to the contrary notwithstanding). The truth of my assertion was proved with the former by the following fact: A tree standing near my ash-hopper, with ashes frequently unleached all the time around it. This tree would have been destroyed by the worms if I had not taken them out with my knife.—Ashes or lime applied in small quantities are good fertilizers to trees, but applied in large quantities will cause a rapid tender growth, more susceptible to the attacks of the borer.

4. Is the only effectual remedy for getting rid

of this blight to the peach orchard, when it is once lodged in the tree. To effect this remove the earth from the tree—the work of the enemy will be found by his eatings, and the gum oozing from the tree; find the cavity and follow it with the knife until the worm is destroyed. This may be denominated the cure.

But an ounce of prevention is worth a pound of cure:

5. PREVENTION.—The 1st of November scrape away the earth and expose the roots to the action of the frosts for at least three months, which hardens the bark and destroys the eggs; if the worm should be there it can be easily removed. In February the trees should be hilled and remain so until three or four heavy frosts in the fall, and the roots again exposed as before directed. I once hilled my trees in June, but found this was not early enough, as I discovered some worms in the fall—since I made my hillocks in February and find them free from worms. By this process the hillock does not remain long enough to injure the tree, or make the bark tender like it is at the surface of the ground where it is covered all the time, causing it to be moist and tender (the hill covers this part) which is most favorable to the maturing and protecting the egg; besides, this mode causes the fly to deposit the egg so high, if it should hatch, the worm travels so slow that it cannot reach the ground, after the earth is removed, and is therefore killed by the frost.

As the time is approaching the prevention should be used. I send you this communication hoping that others may be benefited by it.

Yours, &c., R. A. SPRINGS.
Springstein, S. C., Nov., 30, '54.

REMARKS.—With many thanks for your devotion to the cause, and kind attention to our interest, evinced by your yearly liberal subscription list, friend S., we shall be pleased to have your "experience and observation" on other subjects, whenever it may suit your convenience to give them.

—o*o*o—

From the Southern Cultivator—Nov. No.

Corn and Hogs.

MESSEURS. EDITORS—A correspondent of the Cincinnati Price Current makes a calculation on the deficiency of the Corn crop of the present season, and arrives at the conclusion that the inadequate supply of food will cause an advance in the price of Hog products. It is admitted, however, that there will be a large increase in the number of hogs, over the excess of last year. Say, then that the corn crop is less, and the hog crop greater than that of 1853; the fact is well known that there was a fair surplus of old corn, and an ample crop of oats this season, so that feed for fattening, up to the usual killing season, will not be wanting. Is it not, then, the policy of hog-raisers to fatten and sell off their stock this fall? And, consequently, will not this tend to glut the market with hog products, rather than cause a diminution from the supply of last year? It so strikes us: for surely the stock-raisers will endeavor to get it off their hands, instead of feeding through the winter, with every prospect of advancing prices of corn as the old surplus of grain is consumed.

Say, then, that corn may bring even double

the price of last season till the killing time arrives; the farmer must choose between selling his hogs then, at less, perhaps, than the cost of feeding them, and keeping them through next year, at the risk of a greater loss. What every wise farmer will do, under these circumstances, can scarcely be doubted. He will sell all he can spare this fall. There will consequently be more than enough to meet the demand both for home and foreign consumption; and what must follow? Supply and demand will, as always, regulate the price of hog product, and it is quite as safe to calculate on lower as higher figures than those of last year. At all events, operators will be very unsafe in taking the view of the *Price Current's* correspondent without very close examination of the *pros.* and *cons.* And here we would ask, is it safe to assume that the supply of corn and other grain will not be fully adequate to the demand for the present year? As remarked before, it is known and admitted that there was a surplus of corn from last year; the crop this year is short, but taking the country through, will it not probably be enough to make up a pretty fair supply, with that of last year, to fall back on? Oats have yielded a very large crop. The amount of wheat planted for this season's harvest was undoubtedly larger than that of any previous year, and allowing for a falling off in the yield per acre, (although that is not certain, taking the wheat country throughout,) will there not probably be an increase of several millions of bushels over last year's crop, which was not found inadequate? When we all so consider the Canadian wheat, &c., under the new treaty, will come into our markets to make up any deficiency, it seems a *quien sabe* case, on which speculators may wisely take some time to consider.—*Pittsburg Dispatch*

The Western people and speculators, like to have an opportunity or excuse, at any time, to cry short crops of their produce, in order to raise their prices, in general, and of pork, mules, flour, bagging and rope, in particular.

For a few years past, they have succeeded very well in raising their figures to exorbitant rates; beyond what they can be sustained at much longer; despite the cry of short crops of corn, we do hope to obtain pork, mules, flour, and bagging and rope at reasonable prices this season. Few hogs, but many mules and horses, will be driven South this year, and as corn is scarce here, and the cotton crop will be short, money will be scarce, and planters should use the utmost economy and fatten all the pork they can, and purchase as few mules as possible. Exert a little self-denial, and if forced to buy, wait until late next spring, or until the price suits us.* We shall have to eat poor meat if we buy, and we had as well eat our own.

The result of the high prices of pork and mules, has been to force the South to study economy a little, and make a feeble effort to raise some pork and a few mules and horses; and in a few years, with perseverance, we do hope to be able to succeed to such an extent as to induce the Western produce to seek some other market, and not be so dependent on the South.

The time is past when it is cheaper for the South, (as some yet contend,) to raise cotton

alone and buy everything else.

We have been dependent long enough upon others. No country ever prospered long that always depended upon others. Let our motto be: "Live within ourselves as much as possible, hold fast to what we have got, and get all we can." We will then prosper, and not be starved for the want of other people's pork.

N. T. SORSBY.

*Better wait and risk the bacon market than give present prices for pork.—Ed. F. & P.

For the Farmer and Planter.

Overseeing.

MESSRS. EDITORS:—I will try my hand once more, and I have no doubt, but that a large amount of the readers of your valuable paper, will think that I write about little things, and that is the way I want them to think; for I write about little things because they are little things.

By my writing I do not expect to benefit any man very much, if at all; but I hope by writing to draw some man out on the subject, that is better calculated to do the cause justice than I am. My rule about work is to eat breakfast before going to work, but to eat and be off by daylight; from the 1st of October, to the 15th or 25th of March; and from that to the first of October start at daylight, and work until 7 o'clock, and stop for breakfast, which they are required to take with them, or I have it sent to them if it is any distance, and allow only some twenty or twenty-five minutes to eat. Then work until half-after eleven o'clock, and stop for dinner, and allow from one to two hours (as my push may be,) to eat dinner and rest. Then work until dark.

Negro women should be made wash once a week, which will take but little time; an hour or two of a Saturday evening is sufficient time for them to clean their clothes. I think it is essentially necessary that negroes are made to clean, not only their clothes, but their person, their skin should be washed once a week in summer time especially. This process not only saves their clothes and makes them last longer, but promotes their health and well being. And I always feel much better on Monday morning, when the hands under me are clean and decent.

I think it advisable that negroes be allowed to go to Sabbath preaching occasionally, and I make it a rule, when not contrary to my employer's views, to require such as are under my control, to do so in cleanly apparel. Let them know that you have a good feeling towards them, and they are sure to respect you, and obey you, and do it willingly. I have found it difficult to do business successfully with them, when I have to force everything out of them by the lash; and here I will drop this remark—that too much whipping does more harm than good, not only to the negro, but to your business and yourselves. I believe in chastising them when they need it, and am always certain to do it when they deserve it, but I always try to be merciful. I am fully satisfied that it is a matter of impossibility to get on with them without chastising them occasionally. But there is no use of splitting the skin

for every offence. The drawing of blood creates a vicious and bad feeling in them towards you. I make it a rule to teach negroes to do their work as fast as they possibly can to do it well and be able to stand it. And I use the best of judgment that I can command, about the length of time it will take to do everything I put them at, and force them to do a *day's work in a day*.

It is strictly necessary that the overseer sees into each negro cabin once or twice a week, that it is kept clean; they should be made wash their houses out every two or three months, and keep their yards and under their houses clean.

Overseers should watch carefully over their employer's stock, horses and mules, particularly that negroes have the management of. I never allow them to whip working stock, or beat and abuse them in any way, only when I am immediately present, and then only when I see or think it will make the horse or mule more tractable. I never fail to be in the horse lot at feeding time when it is possible for me to be there, and see that all the horses or mules are fed in their proper places, and the proper amount of food given to each animal. Horses and mules that have to plow hard in summer time, should not be put up and confined in close stables and stalls at night. They should be allowed the privilege of a good roomy lot to walk and wallow in, they rest much better, and are not so liable to be stiffened by a hard days plowing. They should have salt plenty at least three times a week. I prefer salt and ashes mixed, to the salt by itself.

Negroes should never be allowed to run or stroll off of the plantation at night, but should be made go to bed in good time, and all at once as near as possible, so that one may not disturb another. They should all be made rise at the same time precisely. I do not make it a rule to call every negro to get up, but make them rise by the sound of a horn or bell. A blast from a horn is sufficient to raise all hands, and if you find one a little slow without good cause, a few cuts from your cowhide, or a good sound slap or two on the side of the head, will bring them all to the place next morning at the proper time. If the spirit moves, more anon. DECATER.

For the Farmer and Planter.

The Rescue Grass.

Messrs. Editors:—As I am desirous of hearing from my brother farmers who are experimenting with Mr. Iverson's Rescue Grass, I will give so far my experience with it. I received on the 15th of September, one peck—minus 1-3, of the Rescue seed—sowed on the following day, 16th. The land on which the seed were sown is a light gravelly soil, with a clayey subsoil. I had it broken up some five times—the two last to the depth of 12 inches—then spread on it as equally and evenly as possible, sixteen horse loads of a mixture of stable manure, cotton seed—sound—and decomposed forest mould, or in other words, the light dark surface soil, that lies immediately beneath the forest fallen leaves, together with a few bushels of ashes; all of which were turned under with a twister, and then brushed over. The land being thus prepared, I used a plow stock—the hoe being

off—opened the land about two inches deep, and eighteen or twenty apart, making in all thirty rows, seventy yards long. I then sowed the seed pretty thickly in the drills. I had a good season the day before sowing, a slight sprinkle one week after, then a drought for five or six weeks. In two weeks after sown, a few seed came up, and between the 15th and last of October, I had a pretty good stand; but at present, 17th of November, they do not appear to have made much progress towards the stars, but seem to love mother earth very much. The frost does not appear to hurt them. I forgot to say that they were covered lightly when planted.

Yours truly,

JACK BROWN.

White Oak.

Since writing our notes on the Oct. No. of the Farmer and Planter, we have read the following "minutes of Agricultural Facts and observations" upon guano and its results. It contains facts all important to us—who are just beginning to catch the guano fever, and we trust you will lay it before your readers and let them judge for themselves. It certainly may be assumed that a manure productive of such various results, should be handled cautiously, particularly in the interior—where to the high cost of the guano, losses by evaporation, rail road waste, and transportation fees, and perhaps adulteration by dealers, all must be risked. Our experience has taught us that by the time a ton of manure runs the gauntlet of one or two rail roads and steam-boats it is a very short ton.

BROOMSEDGE.

Minutes of Agricultural Facts and Observations,

Collected and noted by the Agricultural Commissioner, and ordered to be published by the Executive Committee of the Virginia State Agricultural Society.

REPEATED APPLICATIONS OF GUANO—LOSING EFFECT.

Mr. Edmund J. Plowden, of St. Mary's county, Md., cultivates near the mouth of the Wicomico river, emptying into the Potomac, opposite Westmoreland, Va. The land in question had been limed in 1840, with 150 bushels of slacked lime to the acre; the lime burnt of shells of the "Indian banks," which from admixtures of bones, &c., contains about two per cent. of phosphate of lime. The land red, not originally fertile, bore pine partly at first, and had been under a second growth of pine previous to the second clearing. Following a crop of corn, in 1844, the same autumn Peruvian guano had been plowed under for wheat, 200 pounds to the acre. The crop good, and the benefit from the guano satisfactory. It being necessary to make a change of the fields or of the cropping, the same (in wheat stubble) was again plowed for and sown in wheat, with 200 pounds of Patagonian guano plowed under. The effect good and the crop of wheat satisfactory. The land had been sown in clover, and produced a very good growth, and remained under that growth the succeeding year, (as usual) was grazed but partially after May 10th, and plowed under in August for wheat, for which (wheat or clover fallow), there was plowed under a third application of 150 lbs. of Peruvian guano. Fair or moderate product

of wheat, not so good as before, and the clover succeeding inferior, though a good clover season. After one year of clover, corn, a tolerable crop. No wheat followed the corn that autumn; but next year the land was plowed for wheat (a usual practice, and good for destroying blue grass, and called "corn stubble fallow,") and 150 pounds of guano applied. The crop of wheat (1852) was very inferior to every one of the former crops, and inferior, as he thinks, to what would have been the crop if no guano had ever been used.—The clover following was a very scanty sprinkling of plants, and these of very poor growth.—The weeds which have possession of the ground are such as belong to poor land. All the guano used in this series of years, (700 pounds in all to the acre,) was bought of the importers, and each lot believed to be good of its kind.

With the above first two, or perhaps three applications of guano, there was intermixed and sown half a bushel of gypsum to the acre; but not approving the addition, the gypsum was afterwards omitted.

Mr. Plowden further states that his countyman, Dr. Robert Neale (an intelligent, observant and scientific farmer), used on a piece of land—for corn—250 pounds of guano, plowed under broad-cast, and 200 pounds more in the drills, on the same space. (450 pounds in all). The corn stood very thick—the season was plenty wet—and the product was very heavy—Mr. P. saw the crop standing, and it was supposed to be equal to 90 or 100 bushels to the acre. Next year the same land was prepared for tobacco, with another application of 250 to 300 lbs. of guano, plowed under broad-cast. From the time the tobacco plants were set out, they continued stunted, and scarcely grew at all, and produced scarcely any crop. On a part of the same, manured from the farm yard, (on the guano of the previous corn crop only) there was made a very fine crop of tobacco. This land of Dr. Neale is part of a section of country, on which guano has been found peculiarly efficacious.

PER CONTRA—GOOD EFFECTS OF REPEATED DRESSINGS OF GUANO.—Mr. W. M. Ambler of Louisa county, on his farm on South Anna River, in 1849 applied 240 lbs. of guano per acre to 8 acres of very poor and greatly washed and galled land. It was sown in wheat, and brought about 10 bushels to the acre, the exact measured product being a small portion over or under that quantity. This was deemed a good and profitable effect, as the land would have scarcely brought wheat at all, without the guano. Clover seed had been sown, and a moderate crop grew—as much as could be expected on other land yielding 10 bushels of wheat. Next year the land was in corn, after 100 to 120 lbs. of guano added, and brought a crop satisfactory from the manure used, but the product not measured separately. (A light cover of wheat straw had been plowed under preceeding the corn.) The ground sown the same autumn (after the corn) in wheat, on 300 lbs. more of guano. The product was supposed by estimate, to be 17 bushels to the acre. 650 lbs. of guano, in all, applied, from 1849 to 1852. The clover was grazed, and seemed a moderate crop.

In all other cases of repeated or excessive ap-

plications, in Mr. Ambler's experience, and observations in his neighborhood, there has been no diminution in the last, compared to the early applications. The locality is about thirty miles above the eastern visible granite. Lime has been repeatedly tried on his farm, and in various ways, and has produced no effect.

WANT OF ACTION, OR OF PROFITABLE RESULTS OF GUANO.—Guano as manure has been so generally found beneficial, and also in most cases profitable, that success seems to be the general rule, and failures are but exceptions to the rule. This I readily admit, at least as to early or immediate effects—though remaining more in doubt as to results of much later times. Heretofore, in all the numerous publications on guano, we have seen little else of facts stated than cases of successful and profitable applications of this manure. Of such exemplifications of the working of the general rule, so many have been published, and so many have been observed or otherwise known by almost every intelligent farmer, that it would be useless for me to swell these minutes by adding more of such facts of successful use. But though not so published, or generally known, there are also many well authenticated facts of failures—and within the accurate practice and observation of good farmers. It is important that such failures, or the absence of profitable results, or of but partial success, and whether in first applications or after several repetitions, shall be made as well known. In offering the following minutes of some such cases, it is by no means my object to oppose the judicious and cautious use of guano, E. R.

Dr. Wm. F. Gaines, of Hanover, has used guano for five or six years, and in all about 25 or 30 tons on his farm Powhite, bordering on Chichahominy. The soil light. The average product in corn (without and before guano) 15 to 25 bushels per acre, and from 6 to 8 of wheat, after corn. In some cases good effects were obtained. But in the greater number of cases, so slight have been the benefits derived, that he is sure that, on the whole business, he has not been more than repaid for the outlay. No abiding improvement of the land has been seen, even where best early effects were noted. The guanoed land has not been thereby made capable of securing better stands of clover.

Mr. Francis K. Nelson, of New Kent, on the White House farm, has used guano to the extent of 70 tons in several different years. He estimated the returns as being about enough fully to reimburse the costs—but yielding no clear profit to encourage the continuation of the use. He has used this manure on soils of various qualities, including some very poor lands, as well as much of good. In the autumn 1852, among the last of his trials, he used three tons for wheat on very poor land—some plowed under, some harrowed under with the seed, and some as top dressing. He is confident that the late benefits did not more than repay the expenses, if so much.

Mr. John Taylor of Caroline, applied ten tons of guano to his wheat, on Hazlewood farm, on the Rappahannock, in 1852. Soil, generally sandy, hazel loam, originally fertile and now in good condition, [the farm and the subject of "Arator."] But there were smaller portions of dif-

ferent kinds of soil included, some very stiff.—The guano was applied about 100 lbs. to the acre, with an equal quantity of gypsum previously mixed. A small space had double this quantity for comparison. Some of the dressing was ploughed under, and part harrowed in, at the time of seeding wheat. No benefit worth consideration was produced on any part of the field, or by any mode of application.

In 1852, he again sowed, for wheat, 4 tons of guano, without gypsum, and, as before, with very little effect, and certainly without anything like an approach to reimbursement of the costs.

He has heard generally, and in many cases particularly, of the applications of guano made last autumn (1853), on almost every farm along on the southern side of the Rappahannock, for about 40 miles in Caroline and Essex counties; (soil mostly sandy and rich)—and he does not believe that in any one case has the expense been paid by the increase made in the crop of wheat. He has heard of much better results this year on sundry farms on the northern side of the river, in King George and Westmoreland counties.

—+00+—
For the Farmer and Planter.

Cotton Culture.

MESSRS. EDITORS.—It was my intention to give your readers a short respite, but an article from "Novice," in the Nov. No., has aroused the passion for scribbling again—so, like the toper when he had passed the grog shop, "I'm going to turn back and treat resolution." Broomseidge is not willing to admit that cotton seed as manure costs nothing. "The value of a thing is just as much as it will bring." Cotton seed is worth 12½ cts. per bushel anywhere. So if a man put 32 bushels per acre, he undoubtedly, added \$4 per acre—is it a good investment—that's the question?—If not we should sell the seed as we do the cotton, and invest the money otherwise. But Novice did not tell us how he carted out his compost without cost. But we will not squabble about this matter now. Novice has given us a capital article on cotton culture, and we are very much disposed to say as the member from Burke did "if I know my own sentiments, Mr. Speaker, them's they." We think, however, we can suggest some improvement. We never could see the sense of throwing up with great care, a high bed for cotton, and immediately set all hads to work to tear it down. We have tried various expedients but never found out how to plant cotton 'till last spring. For this we acknowledge our indebtedness to Capt. Thomas Byrd, of Greenwood, from whom we received an implement for smoothing and opening the cotton bed, which does its work to perfection, a coverer adapted precisely to follow in the wake of the opener, leaving your beds nicely smoothed over and ready for the reception of the seed, and a seraper to do the first working—decidedly the best implements we have ever seen. This forms a complete set of implements, adapted to cotton culture, simple and cheap, which any good blacksmith and plow stocker can make easily. If Novice will try Capt Byrd's implements, and not agree with us, we will acknowledge the corn, and pay for them. Let us be understood, we are

not puffing an implement manufacturer, but offering an acknowledgment due to a public spirited planter who took the pains to set us right. By the way while talking, we may as well say that the best variety of cotton we have ever planted is called the "Calhoun Cotton." Where it originated, we are not able to say. Capt. Byrd kindly sent us half a bushel of seed from which, we have picked 511 lbs. of very beautiful cotton. The overseer counted 70 bolls upon one stalk not much over knee high. It is no humbug—for we have selected our seed for years from fancy stalks, and being side by side, we have been compelled reluctantly to give it up. We trust that even Broomseidge may be allowed to puff a home made article. Before closing we must dissent; however, from Novice's declaration 1200-lbs. cotton per acre on common land—stand or no stand—it is no common land that will average 70 bolls of matured cotton per stalk.

Big Branch, Nov.

BROOMSEIDGE.

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From the New England Farmer.

The Profit of Fattening Swine.

The following facts are offered in corroboration of the views advanced in my late article on the profit of fattening swine in New England:

On the 16th of December last, I purchased four pigs which were the remnants of two litters born about the same time in September previous, and put them in warm apartments, embracing a place for making compost and an eating room leading out of it. Once a fortnight or so during the winter, about a cord of either muck or scrapings from the woods was thrown into the pen, and daily the manure from two horses. The pigs were kept bountifully supplied with straw for bedding, which they arranged in one corner of the compost pen to suit themselves. Enough fermentation was generated in the compost to make their bed warm, and so far to keep out frost that it only appeared in a light scum during the very coldest days. The scrapings from the woods containing some nuts together with decayed sticks and roots, contributed to the health and thrift of the pigs.

From Dec. 16th, to the 18th of March, the pigs had as much corn and cob-meal as they would readily eat, when it becoming inconvenient to accommodate them longer with apartments, they were sold to the butcher at 8c per lb.—he throwing in the slaughter.

Immediately after feeding them at a given time, the meal for the next feeding was measured out and put in the bucket and hot water added—the contents standing in a warm place to soak and swell, and becoming very much increased in bulk before being fed to the pigs. The meal consumed was exactly measured from day to day, and the quantity is known to be as follows:—

First 29 days	four pigs ate	348 qts.	or 12 qts per day.
Next 49	" "	882 "	18 "
Next 15	" "	336 "	21 "

Total corn and cob consumed 1566 quarts, or 49 bushels.

In order to satisfy myself of the amount of corn involved in the above 49 bushels of corn and cob-meal, I have measured out enough corn in the ear to make it, if shelled, just a bushel of

Corn, had it cracked and ground, and found it made by struck measure a little more than two bushels of corn and cob-meal. An inferior quality of corn in the ear might not quite hold out measure when ground; but I am satisfied that a full medium quality will hold out, where the toll is paid in money, and shall therefore call the above 49 bushels of corn and cob equal to 24 1-2 bushels clear corn.

The four pigs weighed, dressed, 616 lbs., and made some 10 loads of compost more than would otherwise have been made. They may therefore be accounted with as follows:

616 lbs. of pork, a 8c. net.....	\$49,28	
Deduct 49 bu. corn and cob, or 24 1-2 bu. clear corn, a \$1 per bushel.....	24,50	
Toll for grinding 49 bu. corn cob, a 4 c. per bu.....	196	
Paid for pigs, Dec. 16th, \$4 each.....	16,00	42,46
Balance, over and above \$1 per bu. consumed, of 28c. per bu., or in all.....	6,82	
And the pigs have left 10 loads of compost, worth a bushel of corn each.....	10,00	
From which deduct, if you please, the cost of supplying the raw material, say 50c. per load, which is rather too high.....	5,00	5,00

Profit on the four pigs.....\$11,82

I regret that I did not have the pigs weighed on the 16th of December, because if I had done so it would be easy now to find how much more pork a bushel of corn ground, cooked and fed with the addition of the cob, was in this case made; but from as exact an estimate as I can form, judging from the weight of some of the better pigs of these two litters, sold a few days previous to the time I bought mine, I am induced to think the pigs must have gained not far from 15 lbs. of pork for each bushel of clear corn consumed; which, considering that the fattening process was conducted during the very coldest portion of the year, argues pretty well for feeding corn and cob ground together.

I have briefly to add to my former remarks on selecting pigs for fattening, that so far as I know, pigs of a round barrel like frame are apt to yield rather thin pork and too much offal; but those having extra depth of carcass, and not so fine bred as to lack bone to sustain them while fattening, nor so coarse bred as to be too late in maturing, but of a just proportion in this regard, are the right kind of profit. Pigs bred too fine, early cripple in the legs when fed high, so that they are unable to exercise sufficiently to promote healthy appetites and strong digestion, and therefore make but light weight, and their pork is not generally so saleable nor desirable for domestic purposes as that of younger pigs of the first quality. Pigs with rough, staring bristles and a generally wild look, are not so kindly to fatten as those of a mellow and wavy appearance and quiet disposition. F. HOLBROOK.

Battleboro', March 28, 1854.

Rules for Winter.

I. Keep no more stock than you can keep really well. If you have more, pick out the most inferior and sell them. Better to winter ten head well, and have them in fine condition in the spring, than to keep twenty half-starved,

which it will require all the next summer to put into condition.

II. Heat and shelter are equivalent to food. Ask yourself whether it is better to spend a hundred dollars in putting up a good shed, which will last for years; save half your fodder; and preserve your stock healthy and comfortably; or to spend this hundred dollars in hay and other fodder; in wasted manure, and diseased and dying stock? It is fully proved that well-sheltered animals, with racks to eat from, can be wintered and kept in fine condition, on *one-half* the food necessary where stock is fed out of doors on the ground, with the lee-side of a rail-fence for shelter, and this without taking into consideration the saving of manure, and many other items of profit.

III. You cannot make your young animals too comfortable, or feed them too well during the first winter. If they are once stunted, or starved, they will never recover it. This applies to all kind of stock, but especially to calves and colts.

IV. Therefore make provisions not only for their shelter, but also for their food. Hay alone will not do for them. If you have no roots, feed them on bran, and crushed oats, and corn. The secret of having fine stock, is to keep them always in growing condition. This they do during summer on the best grass; and the cold of winter consumes a great proportion of the food eaten in producing heat, which in summer goes to constitute flesh and fat. It is morally impossible that a young animal can continue to grow during our winters on the same food which keeps it in summer. Both the size and health of your animals, and the milk-producing power of your cows, will depend on their being well fed during winter.

V. It has been fully proved, that if your sheep are shut up all winter, with a sufficiency of water, they can be kept fat on wheat and oat straw alone, and make a vast quantity of manure, though a few roots, or a little grain once or twice a week is better. Thus, by having a proper building, you can turn all your straw into wool at 50 cents a pound, and the richest manure, instead of burning it, or letting it rot, as is so often done. Would not this soon pay for a shed?

VI. Remember that you raise cattle in order to make a profit on them. It costs, on an average, \$5 a year to raise a common cow, in the common way, to maturity, at four years old, and then you barely get \$20 for it. It may cost you \$7 a year to raise a fine grade to maturity, at three years old; and you will get \$50 for it. In one case you barely get what the beast costs you; in the other, you make \$29 profit. As regards horses, the difference is greater still. Depend on it, no one ever made money on stock by half starving and neglect; but you cannot fail to make money, if you breed judiciously, and feed and shelter liberally.

VII. If you would grow profitable crops, and prevent your land from being impoverished, you must manure liberally. This manure you must either make or buy, if you can find any one to sell it; for our Western lands must have vegetable, as well as mineral manures. Now, if you

allow your cattle and sheep to run loose all winter, you will make no manure. If you keep them up all winter, you will make a great deal of it. The annual difference is, probably, on a common farm, 20 bushels of wheat, or, this year, \$20. That would pay 10 per cent. interest on \$200 invested in buildings. But as you could keep 20 head of stock shut up, on the same food that ten would consume running loose, we may call the difference of profit far greater than that.

VIII. Again, every heap of dirty rotten straw is *not* "manure," though it is often called so by courtesy. Manure is of no use to a plant, until it can be dissolved in water. Now, if you leave a heap of straw and dung exposed to the rain and sun, nearly all that makes it useful to a plant runs off, or escapes into the air. After a time, nothing is left but *humus*, or rather, woody fibre. It is true that rotten wood may do some good in some lands; but they wash your manure clean of everything else before you apply it? The best preserved and richest barn-yard manure, consists of—

Water.....	65 parts
Organic, or vegetable matter.....	24½ "
Organic salts.....	10 "

Now these last ten parts are worth all the rest; and yet they run off with a few showers, as well as all that is truly excellent in the 24½ parts; and you cart to the field a heap consisting of water and rotten straw, scarcely soluble, yet affording a little carbonic acid gas. But if you keep your cattle shut up, and have a rough cheap shed outside, into which you daily pitch the dung, you save all this loss; you save the urine, which is far more valuable, as well as the dung; you have it dry, and therefore do not waste your time in carting water to the fields. One load of such manure is estimated as fully worth five of the best saved without cover; and worth a very great number of loads of the rotten washed stuff too often applied. Now, here, the saving and profit are very great.

IX. But if you are afraid of the trouble of cleaning your stables daily, have your floors altered to Mr. Meehi's plan; that is, instead of plank, have the floors made of scantling a few inches apart—there is a fixed rule for the different kinds of stock—and a hollow vault, water tight, beneath. The dung and urine will fall in, and be saved till you need them. Another benefit of this system is, that you need no bedding, and can feed out *all* your straw. It has been tried in Michigan with great success. The urine of cattle is a far richer manure than the dung; and every possible pains ought to be taken to save it. Liebig says that *all* the ammonia which renders guano so valuable, and which is so greatly needed by our wheat, is derived from the urine.

X. These rough hints must serve for the present. Those who wish to prosper will follow them. Those who are rich enough, and do not wish to prosper any better, are at liberty to neglect them. But there is one exception. No man has a right to torment dumb animals entrusted to his charge; and we are sure that a calf, half-starved, exposed to a bitter, bleak west wind, with the thermometer at zero, cannot feel

very happy. The ox that has helped to fill our granaries, the cow that supplies our daily milk and butter, the colt which will be our companion and friend for years, have all a right to claim our consideration and tender kindness.—*Farmer's Companion and Hort. Gazette.*

LEARN TO COOK WELL

We again propose this advice to those of our young female friends who may chance to look into this journal. There need be no scruple on the ground that the aim is not sufficiently high for a generous and cultivated mind. To do well whatever it becomes our duty to do at all, is an ambition sufficiently elevated, for the highest and most gifted spirit. The care of the family will be the duty of the woman till we all get translated to a higher sphere of existence—and family cares will always, as now, be made up of details small in themselves, 'tis true, but in the aggregate, and to their connections, vastly important. We say, then, learn to cook well.

The health of the family depends upon it. We know there are those who associate luxury, effeminacy and all dependent ills with every attempt of the kind recommended. But we do not believe that health is promoted by eating raw carrots, or dough, bread—orthat to secure long life, it is necessary to turn cannibal. Nor were men made to graze like cattle, or eat like dogs.

Nor is it necessary, in order to shun the errors of which we speak, to rush into the opposite extreme. Good cookery does not consist in producing the highest seasoned dishes; nor such as fosters a morbid appetite, but in preparing every dish well, however simple or common it may be.

There are, for instance, families who never eat good bread from one century to another, and have no idea of what it consists. Nor are meats any better within their precincts. Those little, simple and healthy delicacies, which the good housekeeper knows intuitively how to produce, are never seen here, even a dish of potatoes cannot get themselves well boiled. A member of the family might as well fall among the Hottentots, as far as any proper nursing is concerned. These things ought not to be, nor is there any need of their existence, if the wife has any just notions of her obligations to herself and those about her.

The science of bread making, meat boiling, of vegetable cooking, and of preparing multifarious small dishes of all sorts, which go to make pleasant the table and all about it are hers—hers, to understand and practice.—*Prairie Farmer.*

Onions for Fowls.—Scarcely too much can be said in praise of onions for fowls. They seem to be a preventive and remedy for various diseases to which domestic poultry is liable. Having frequently tested their excellence, we can speak understandingly. For gapes and inflammation of the throat, eyes and head, onions are almost a specific. We would recommend feeding fowls, and especially the young chickens, as many as they will eat as often as twice or three times a week. They should be finely chopped. A small addition of corn meal is an improvement.

For the Farmer and Planter.

Southern Central Agricultural Society.

The eighth anniversary of the Georgia Southern Central Agricultural Society, has been celebrated in the city of Augusta, with the pomp, parade, enthusiasm, gratification and disappointments which necessarily attach to all such festivals. It will not do to say that the city was crowded—that it was a perfect jam—that a fellow's chance for a lay down depended upon his capacity for spreading out, for it was beyond that point; it required considerable adroitness to secure a place to sit up "*ad libitum*," the best seats being, of course, reserved for the ladies. As to eating, everybody knows how that department is conducted at a fair, and if any man has fuss that he will be cheated out of his allowance of dirt in life, that's the place to go to for security. But the social intercourse, the fellow-feeling, and the good fellowship we meet with on such occasions, out weigh all the petty trials, stomach aches and disagreeables that we may encounter. We break up the encampment with a feeling that we must meet again, that we have formed new links in the chain, brightened old ones, strengthened the bond of union between different sections, and given tone, strength and point to agricultural character.

The ladies department was filled with everything almost that was useful, beautiful or sweet—scores of heavy quilts and coverlids, counterpanes and spreads with such a look of comfort about them that many a one wished "*ab imo pectore*," that while the thermometer stood at 20, his abiding place might be at the fair grounds. Needle work, crochet work and embroidery, wrought by the most cunning fingers, and tapestry work so exquisitely and artistically executed, that we could hardly realize it. The tapestry pictures of Ruth and Boaz, and Mary Queen, of Scots, are works of art of extraordinary merit. The committee recommended that they should be sent to the World's Fair, at Paris, at the expense of the society.

We will not tell about the delicious (*looking*) preserves, bread, butter and all that, for our mouth still waters at the thought; but we may say that it was no common gratification for us to see Carolina names on some of the best specimens. Mrs. Powell exhibited some beautiful fabrics of Merino wool, equal to the Rock Island tweeds. Fine specimens of fruit trees of Southern growth, and chiefly Southern seedlings were exhibited, and we believe the premium for the best collection of Southern seedlings, was awarded to our enterprising citizens, Summer & Crammond. Southern seedlings may now be said to have a place in the catalogue, and a little pains in picking up good varieties throughout the country, and sending them to Summer & Crammond, would confer upon the horticultural world a great favor.

The agricultural implement department was by no means as well filled as we expected to find it, and very little attention seemed to have been directed to implements, peculiarly adapted to Southern agriculture. As good a collection could be found in any of the stores of agricultural implements. The Poulter's exhibition was pronounced by Amateurs the finest in the world.

As an exhibition of fancy monstrosities, "come and feed me mores," and all sorts of outlandish creatures, the show was wonderful—but then magnificent—geese upon Hong Kong & Bremor, turkeys from the wild wood and China; white guineas, top knot ducks, fancy pigeons, and lop eared rabbits. Our ears are yet ringing with the Babel-like concord of sounds. Carolina carried off some of the premiums, also, in this department; but Mr. Redmond had by far the finest collection of poultry we have ever seen, and he knows all about it. The exhibition of horses was very good, but we saw very few filling our eye as the horse wanted South; the "horse of all work." Long legged, light barreled, high head, ed, lath legged horses are not what we want—gaily and majestically as they may carry themselves; we want more bone—more stamina more docility and better action. It was a bad season for the horticultural department, but we noticed from the garden of Mr. Peters, of Atlanta, very fine specimens of turnip, carrot, beet and potato. We noticed on exhibition some of the finest specimens of sweet potato it has ever been our good fortune to look at. We noticed a few specimens of grains of Egyptian oat, a winter oat, said to be very prolific and very hardy, standing any breezes that wheat or rye can stand. A few lots of corn, a long-grained gourd seed, white, from Mr. Van Buren, of Clarksville—a good corn—the farmer's crib filler; wild goose, or tuscaura, which you spoke of last summer, and sent us a specimen. There was a great deficiency in this department.

Of the grasses, we saw nothing save some exhibitions of well known varieties nearly worthless, which had been obtained by some marvelous means, from somebody who could not speak a word of English, and had come from, God knows where, but after great care and at great expense, had been found wonderfully adapted to the South; and now as a special favor from purely patriotic considerations, would be sold at \$5 a quart. A new supply of fancy cotton seed was on the ground, and readily taken at \$5 per bushel. When will people learn to avoid an ox with hay on his horn?

The exhibition of domestic animals although not very extensive, was remarkably fine. The beautiful Devons of that most spirited breeder, Mr. Peters, of Atlanta, were pronounced by competent judges, superior to anything exhibited at any of the Northern Fairs. In truth we do not see how it is possible to improve upon them. He has from the beginning been careful to keep an eye on the milking properties of the animal, and has doubtless now the choicest herd in the United States.

We are fortunate in having at the South a man so devoted to the business, and who will spare no pains or expense to secure success, and what is more important in who is perfectly reliable, there is not an ounce of humbug about him.

Mr. Peters had some beautiful Ayrshires—fine milkerstoo, and of unquestionable pedigree. His South Do wns sheep were remarkably fine, and it will be gratifying to know that Col. John D. Williams, one of our most enterprising and successful planters, purchased his prize buck and

some fine ewes. Our friend, Col. Watts, formerly of Laurens, took a premium upon a very fine Durham Bull, and on some very fine sheep, French and Spanish Merino each. Col. Watts has entered enthusiastically into the business, and carried off a handsome show of silver cups on this occasion, as he well deserved, for his sheep gave evidence of good breeding and good keeping. He speaks very favorably of the Merino, and thinks it the sheep best adapted to our soil and climate. The fleeces of his flock on exhibition were very fine. Our friend Col. Sumner, took a premium upon a remarkably beautiful Devon heifer, (of the Peters herd,) as well as fourth best Suffolk Boar, a very fine animal. There was quite a fine show of Suffolk, Essex, and Grazier hogs—chiefly from Mr. Peters farm, who exhibited fine specimens of Essex and Grazier. The Essex is a black hog, with very little hair upon it; said to be remarkably hardy, and rapid in growth.

Dr. Davis had on exhibition his beautiful Cashmeres, which of course had no competitors for prizes. This indefatigable gentleman is realizing a rich reward for his efforts to introduce this new variety of wool bearing animal amongst

us. He could have sold his whole stock at \$1000 each, but refused. Wonderful and exorbitant as this may seem, when you reflect that the second crop upon the common worthless goat of the country will give you a beautiful creature, bearing a fleece worth \$5 or \$6 per lb., and increasing as rapidly as a goat, it is not so sharp after all.

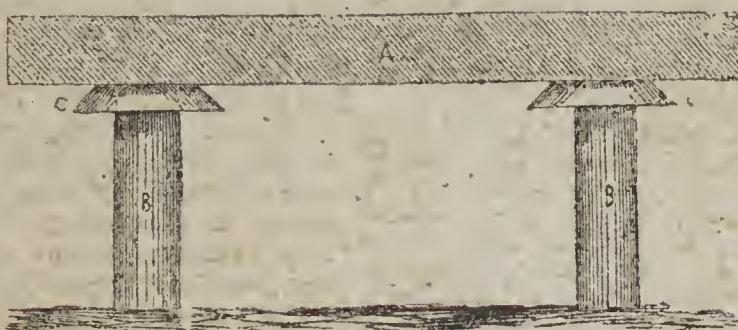
It was gratifying to meet a great many Carolinians at the fair, who albeit they had settled on the rich lands of Georgia, still had a passionate attachment for every Carolinian. If we could only catch the mania for improvement which is now exciting our western neighbors, and pay more attention to domestic progress, we would be a fortunate people. There is one difficulty, and a great one removed, there is no necessity now for running North for every new thing. We have more judicious, practical and reliable breeders of stock at home. We have extensive nurseries of better fruit adapted to our own climate and soil, and not contaminated by northern insects; let us patronize our own people, and try to improve upon the past.

BROOMSEGE.

Augusta, Georgia.

Rat Proof Buildings.

One of the most effectual modes of preventing the ingress of rats into granaries, barns, milk houses, &c., is to elevate the lower floor above the ground two or three feet, putting caps over the posts on which



the building rests, made of tin, in the form of a common milk pan inverted, as seen in the annexed diagram, in which A is the frame of the building, B the posts, and C the tin caps over the posts.

Indeed, common tin milk pans will answer the purpose exactly, the concavity of the in-

terior effectually preventing the vermin from jumping up.

Nutritive Properties

OF DIFFERENT CROPS—VARIATIONS IN THE SAME CROP—BEETS FOR SUGAR, ETC.

The following, by C. W. Johnson, F. R. S., is the leader for Sept., of the London *Farmer's Magazine*, and cannot but prove instructive to the scientific farmer. We should know the relative value of crops for flesh making, and before we can increase this valuable property of crops, it is necessary to know their value relatively, as well as the causes of variation. The same crop will vary in value, for definite purposes, with the kind of manure used, size of result, etc. The remarks on beet roots, are equally applicable to many other crops.—ED. WORKING FARMER.

It is only but of very late years that any considerable attention has been paid to the nutritive powers of different crops; still more recently has it been suspected, and shown by chemical analysis, that these powers vary in proportion to some of the circumstances which attend the growth of vegetables—such as the size of the plants, the first or second cuttings of the same crop, or the manures with which it has been fertilized. Certain observations of the practical farmer had, it is true, led him to suspect that such difference did occur, although he

felt unable to assign any rational explanation of his little more than suspicions. Of such a kind were the conclusions of the Lincolnshire farmer, that the turnips fertilized with bones were rather more nutritive than those grown with farmyard manure; those of the east of England farmers, that the varieties of swedes which were remarkable for the bulk of their bulbs, were not so noticeable for their feeding properties; then again, the owners of the water-meads, in the valley of the Kennet, noticed that it was a safe practice to feed his sheep upon or soil them with the grass of the first crop of those fine meadows; but that it was very dangerous to do either with the second crop of watermead grass. Now the origin of these phenomena stands so completely at the very threshold of all inquiries upon the growth of artificial food, that we cannot estimate too highly the value of any chemical resources which tend to elucidate them. There have been several papers published within these last few weeks, affording very considerable information on this important question. Thus Professor Way has shown (*Jour. Roy. Agr. Soc.*, vol. xiii., p. 176,) that there is a very material difference between the chemical composition of the first and second crop of grass obtained from the same water-meadow: his specimens were

gathered, I. on the 30th of April, II. on the 26th of June; now these contained in 100 parts in a green state—

	I.	II.
Water.....	87.58	74.53
Albuminous or flesh-forming principles.....	3.22	2.78
Fatty matters.....	0.81	0.52
Heat-producing principles—starch, gum, sugar, &c.....	3.98	11.87
Woody fibre.....	3.13	8.76
Ash.....	1.28	2.24

The flesh-forming powers of different natural and artificial grasses were found by the same chemist to vary very considerably; thus 100 parts of the following grasses contained I. of water, II. flesh-forming principles.

	I.	II.
Sweet-scented vernal grass.....	80.35	2.05
Cock's foot grass.....	70	4.06
Meadow barley.....	58.85	4.59
Meadow cat's-tail grass.....	57.21	4.86

ARTIFICIAL GRASSES.

	I.	II.
Trifolium incarnatum.....	82.14	2.96
Red or broad clover.....	81.06	4.27
Sainfoin.....	76.64	4.32
Cow-grass.....	74.10	6.30

Dr. Anderson (*Trans. High. Soc.*, 1853, p. 509,) has given the amount of albuminous or flesh-forming matters in a variety of substances upon which the stock of the farmer is commonly fed; he found in 100 parts of—

Rape-cake—albuminous matters.....	20.53
Common Scotch tares.....	28.57
Linseed-cake.....	27.69
Field beans.....	27.05
Linseed.....	24.44
Grey peas.....	24.25
Clover hay (second crop).....	13.52
Oats.....	10.16
Wheat.....	9.01
Scotch bean straw.....	8.35
Barley.....	7.74
Chevalier barley straw.....	1.90
Early angus oat straw.....	1.50
Red wheat straw.....	1.50
White wheat straw.....	1.37
Turnip.....	1.27

These researches are full of interest, and naturally lead to many practical conclusions in the selection of grass seeds, and in the feeding of stock with artificial food. The effect produced by the action of various fertilizers upon the nutritive properties of the plant has recently been examined by more than one chemist; thus during the attempts which are now making to introduce the manufacture of sugar from beet-root, many enquiries have been made, many trials instituted. It may be useful to the young farmer to know that it is now pretty well ascertained that from 7 to 8 per cent. of sugar may be extracted from the raw beet, by the most improved process; and that in the south of France the manufacturers are now extensively using the yellow globe mangold wurtzel for this purpose. We are assured that extensive preparations are now making to establish in this country a very large manufactory of beet-root sugar.

PROPERTIES OF THE SOIL SUITED FOR THE BEET.

1. The soil should be a rich loam, inclining rather to clayey than to sandy, but should not

partake in the slightest degree of a peaty character, that is, the organic matter should be fully decomposed and thoroughly well distributed through it. 2. It should be exceedingly well cultivated and free from all clumps of hard clay, or from stones. 3. The sub-soil should neither be a stiff, cold clay, or an open stony gravel. 4. The soil should be deep, and drained as thoroughly as possible. 5. Newly reclaimed land is unfitted for the cultivation of beet for the manufacture of sugar. 6. No labor should be spared upon the pulverizing of the soil, not only before the sowing of the seed, but during every period of the growth of the plant.

MANURES SUITED FOR THE BEET AND MODE OF APPLYING THEM.

7. Rich nitrogenous manures, such as farm-yard manure, guano, &c., should never be applied to land intended for the cultivation of beet, immediately before sowing, but should either be applied with the previous crop, or applied during the preceeding autumn, or at least should be put on as a winter compost. 8. Soluble saline manures should be applied very sparingly, and never during the growth of the plant. 9. Salt should never be applied except with the greatest care, or any substance containing nitrates, or capable of forming them. 10. Ashes, such as those of wood, peat, coal, &c., may be employed, and bone-earth in any form, apparently without injury. 11. Lime is always good, and calcareous soils seem to be the best adapted for the growth of all the varieties of the beet, and of most of the other root crops. 12. Green manuring has always been attended with success, and crops of rape, or of other plants having the general composition of the beet, may be grown upon land heavily manured in the autumn, with fresh farm-yard manure, and then plowed-in early in spring. 13. That the whole of the sugar in the Irish beet is crystallizable cane sugar. 14. That the percentage of sugar in Irish-grown roots is not inferior to that of continental roots grown under the same circumstances.

The general conclusions to which all these researches tend are most important, since they lead us to this valuable inquiry, viz.: Do we not sometimes lose in the feeding *quality* of our green crops what we gain in bulk?

A Cure for Bone Felon.—A friend informs us, that while suffering with a bone felon, 20 years ago, Dr. F. LeBarron, late the Apothecary General of the United States, advised him to fill a thimble with soft soap and quicksilver mixed, and bind it tightly over the felon. This he did, and in the course of 12 hours, it was drawn to a head, when the core was removed, and by the appliances of the usual poultice, the sore soon healed. Our informant remarks, that this is a severe expedient, but one that is preferred to the customary treatment. We have heard others who have used the remedy prescribed, say that it is the most effectual and expeditious. As a good many are now afflicted with bone felons, we have been requested to make this publication. May it prove "a real blessing" to the suffering.—*Balt. Clipper.*



The Farmer and Planter.

PENDLETON, S. C.

Vol. VI., No. 1, : : : : January, 1855.

Salutatory.

With the first number of our new volume, we send out to our friends the usual salutations of the season, with the expression of our most ardent desires for their health, prosperity, and happiness throughout the year. Since the commencement of our last volume, several of our old and highly respected subscribers have been called from their labors. To the relations and friends of all such, we beg leave to offer our sincere condolence,—The year 1854 has, in more respects than one, proved itself a sad one to the inhabitants of our whole country. That we may not again experience such another, must surely be the most ardent prayer of every one. May our chastisements prove salutary in the end—may the departure of our friends admonish us to make preparations for travelling the same road—and may the failure in a great degree of our crops, teach us the necessity of a better preparation of our land, so as to guard against the too commonly fatal effects of drought. Let us commence early, while the weather is cold and our teams strong, with the determination to plow closer and deeper than we ever have done before, and with such preparation we can assure our readers that we shall have less cause to complain of the seasons, whether too dry or too wet, too hot or too cold.

The Farmer and Planter.

On receiving this number, it will be seen by our readers that, notwithstanding the discouragements that have attended the publication of agricultural papers at the South, and especially so in our own State, we have become sole proprietor of this paper. Our subscribers are aware that in our humble way we have, almost entirely for the last three years, conducted the editorial department. This we shall continue to do to the best of our ability, and with no abatement of our heretofore devoted zeal, until the increased and liberal patronage of the paper will enable us to employ one more competent, which we greatly desire may be the case in a very short time. Our former editor and co-partner was forced, for the want of adequate support, to retire from the paper and go into other business that would pay better. He left it in our hands to do the best we could with it—this we have done, and trust our friends have been sufficiently satisfied with our labors to continue to us not only their former favors, but that each

one will take it upon himself to make some additional exertions in our favor, by persuading and urging his neighbors to become subscribers.

We have, in purchasing the claim of Mr. GILMAN to the press, and in procuring materials for the new volume, incurred considerable additional expense, which will require no small addition to our subscription list to meet, and it now rests with the friends of the cause to say whether we shall be sustained or not. With the increase of our subscription list through the last year, we have been sanguine in the belief that we *should* be sustained, and hence our venture in the purchase—but it is proper that we assure our friends, that up to this time our prospects are anything but flattering.

As *Publisher*, we have procured the services of Mr. S. W. LEWIS, a competent printer, and a sober, steady, and attentive young man, who we are sure will not fail to give satisfaction in his department.

GEORGE SEABORN.

Apologetic.

Our subscribers will, we trust, excuse us for our tardy appearance when we inform them that between our paper makers and Railroads, we have been thrown nearly a month behind the expected receipt of our supply of paper. Such disappointments are much more annoying to us than the much more inconsiderable ones of not receiving their number in due time can be to our subscribers. Would that we had inherited a little more of Job's patience. But says the *New Era*: "If Job had published a newspaper, his name would not have come down to us, with the reputation for patience which he acquired. To be the public's obedient, humble servant, the people's dog, to have every body to please while every body is particularly hard to please, to attempt to give satisfaction to every one and be reminded of his failure by a very lordly withdrawal of patronage and a peremptory order to "stop my paper," (notwithstanding it may not be paid for,) would stir the blood of the patient man to the boiling point. The man that can conduct a newspaper without having his temper occasionally ruffled, must be as gentle as a lamb, as harmless as a dove, as humble as a hound puppy and as meek as a puny kitten or a sick turkey hen."

In volume 6 we have promised our patrons an improvement on all preceding ones, and we cannot doubt that in the present, first number, they will acknowledge the evidence of a disposition to fulfil our promise. It will be perceived that our columns are longer and wider than in our last volume, and that independent of our advertising sheet, the number contains more matter than any that have preceded it; and as to the matter, both original and selected, we feel sanguine that our readers will consider it by no means inferior to what we have heretofore served up to them. And now with an earnest disposition to perform our part of the contract, what say our friends on *their* part. Will they sustain us? We shall see, and that shortly. We have so far lost but few of our old subscribers, but up to the time of writing this article, the last of Decem-

ber, our new ones are too much of the nature of Angels visits, to flatter us into the belief of any very active exertions on the part of the friends of the cause in behalf of their organ, the only one now left in our State. An old plow worn out in your service, and no metal to relay it.

The Agricultural Fair.

We regret it was not in our power to attend the annual meeting of the Southern Central Agricultural Society, which lately come off in Augusta. But although we were deprived of the pleasure of attending the Fair, our subscribers will not fail in having a most interesting account of it, served up to them in our present number, from our highly esteemed friend, and excellent correspondent, "Broomsedge," to whom our grateful acknowledgements are always due for his many acts of friendship and polite attention.

Oats.

How many of our readers have sown their oats in the fall? How many are sowing or preparing to sow in January, and how many have resolved on sowing more land in oats, and planting less in corn? are questions of some importance, especially to those who may thereby be induced to adopt either course.

Do not be alarmed friends A and B, we are not going to advocate a reduction of your usual supply of corn by insisting on a less number of acres being cultivated in that crop, but on the contrary to *increase* the barrels by *decreasing* the acres, and at the same time increasing our oats and other small grain crops, with less labor, and with not only less exhaustion, but a gradual improvement of our land. All well enough you will admit if it can be done. Well, as an old acquaintance of ours in Greenville District used to say on all occasions, "I am candidly led to the belief, sir," that it *can* and *will* be done by all those who earnestly resolve to make the effort. Thorough surface and under *draining*, deep and subsoil *plowing* and *manuring*, with all the manure possible to be made on the farm, and as much more as you may have the money to spare to buy, provided you are certain of its being returned with interest in the increased crop, and last, though by no means least, a proper *rotation* of crops including rest, will, without doubt in our mind, well accomplish our objects. We may here be asked what we would consider a proper rotation; the answer to which must depend on the particular kind and relative proportion of crops to be cultivated. Without allowing cotton, which is, and always has been in our way—to take its place in a course of rotations, we think we could devise an advantageous one, but will not attempt it at this time. In our next we will endeavor to give some of the Virginia systems of rotation, which are more scientific, and have proved to be much more profitable than any practiced farther South. The Virginia course of rotation does not include cotton, however, and we shall be pleased to hear from some of our Farmers and Planters farther South on this becoming important subject to the whole South.

In retracing our steps to our starting point, we find we have overrun the object we had in view when we

set out, which was only to advise such of our subscribers as do not practice sowing their oats in the fall, to sow in January instead of waiting till February or March, as is the usual custom in the up country, in our own and adjoining States, we believe.

For several years past not being able to procure, or rather neglecting to procure the winter oat seed, we have not sown in the fall. We have, however, now growing a few acres that look well for the season, which were sown in the first of November, about one month too late, we think. But our practice has been to sow a part of our crop invariably in January, which has as invariably turned out to be our heaviest and best crop so far as the grain is concerned. Late sowing will make more straw, but lighter grain. Even if the season is suitable, which it is less apt to be for late than early sown oats. As to the danger of having them killed when sown so early, there is less, we find, than when sown late. In February we usually have a warm spell of weather for a few days, at which time it is customary to commence sowing. After this spell, and about the time that oats are in the sprout, then comes on a hard freeze, and the consequence is the loss or partial loss of the crop. Whereas such as are sown in January lie there until the warm spell in February sets in, when they sprout, and are up in a few days, and when properly up and have put on their green coat, they are out of danger of a February frost.

In the preparation of oat land, we would advise deep plowing, and especially for late sowing *very* deep, but they may be covered with a cultivator or short plow. Our greatest enemy to the oat crop is the spring drought. With proper preparation of the land, and with early sowing, we should have much less cause to complain of its too often fatal effects, when the grain is put in as is our usual slovenly custom.

Our Address.

On all business relating to our paper, address GEO SEABORN, Editor Farmer and Planter, Pendleton, S. C., and to prevent your letter from going to the dead letter office, be sure to pay the postage, unless it contains a communication for the paper, when that is the case, write on the back of the envelope "communication." If you ask for your account, a receipt, or for any information by letter, please enclose a stamp.

Our Advertisements.

We desire to call the attention of our readers to our few remaining old advertisements which we have heretofore noticed; also to our new list, not forgetting if you want anything in their line, where to apply for it. We have several cards from firms in Charleston; please when you go to Charleston recollect them, and let us tell you that you will always get better bargains from a man that will advertise, than from one that will not. Go to the latter and you are a shaved man. We think if our Charleston merchants would advertise more liberally in their own State, there would be less complaint of our country merchants going to New York for goods. The New Yorkers advertise more freely than do the people of Charleston, but some of them are great rascals about paying. It will be seen that the Messrs.

MONTGOMERYS, of Baltimore, are taking all the first premiums by their celebrated Wheat Fan. We have one of them which we have heretofore noticed. It operates admirably. We will with pleasure order for any friend one.

Agricultural Convention.

We have received a communication from a highly respected friend and subscriber at Summerville, suggesting the holding of a Convention of Agriculturists, (not politicians,) at Columbia, in July next. With all our heart we second the motion, and will make every exertion in our power to bring it about. What say you friends of the cause? The communication came too late for this number, but shall appear in our next.

This is the 15th of the month, and our January number just going to press. Well, friends, it annoys us more than it possibly can you. Some time in November we wrote to our paper makers for a supply for January and on the 13th of December they wrote us that paper had been delivered to the Railroad Agent of Yorkville, with instructions to forward to Anderson and this is the last we have heard of it. We wrote to the Agent at Yorkville, making inquiry about the paper, but he has not deigned to answer us and if he has ever sent the paper from the Depot, we presume it must be yet lying at the junction of the Yorkville & South Carolina Road, or at Columbia. After making almost daily applications at our Depot for some two or three weeks, we wrote to Greenville, where the paper has since been made which we are now using, and for which we feel under obliged to the Greenville Manufacturing Company in furnishing so promptly; but regret that it is inferior to what we have been using, and to such as we desired to send out at the commencement of our volume. We have a word or two to say in our February number about the neglect and bad management on our South Carolina Railroads.

Errata.

In Mr. Watts' article on sheep, &c. page 328 second column, 8th line, for "two flocks," read his flocks. This is an important error which our readers will please correct in their number.

Messrs. Editors of the Farmer and Planter:—Hoot toot! Hoot toot! No Farmer nor no Planter. Hoot toot! what shall we do, we have no person to dun for the paid or unpaid lines. But it is a wise judge that withholds his opinion until he hears both sides of the case. Perhaps we will hear a good excuse; but the editors of all or nearly all the papers in the State of South Carolina, have become remarkably particular with regard to the cash system. Do you as one of the cash brethren, not think it a bad rule that will not work both ways. Then reflect for a moment, and allow us, the paid up class, to complain a little when we feel our interest neglected. You pay up fellows ought to send your pa-

per regularly, or cease to require the farmers and planters to pay in advance for that which they have not received.

I remain yours, &c. W. D. A. DEAN.

N. B.—You can publish the above lines if you think proper.

REMARKS.—Well, old friend, we publish it as you seem rather to desire it, for we are not afraid of a scolding, especially when not deserving it. But if you will give some of Uncle Sam's officers a rasping we will take much more pleasure in publishing, for if regarded at all it might benefit others as well as ourselves. We have no excuses to make. We have only to state the fact, as we have a hundred times over to our subscribers, that their papers are regularly mailed to them, and that they do not as regularly receive them we regret as much as they do—for we not only in some instances are "tooted" at, and in others complained to, but make it an invariable rule to send again the missing number, if we have it on hand, if notified.

As to the "cash system," although our terms are cash, in advance, yet we have not been so "remarkable particular with regard to it" as you may suppose—and as you might convince yourself of by an examination of our books, on which you would find many a name that has never yet paid us the first "red cent."—Ed. F. & P.

N. B.—When our friends scold us, we would be pleased if they would "advance cash," enough to pay the postage on their letters.—Ed.

Editors' Table.

Subscribers to the Farmer and Planter who have not ordered a discontinuance before January, are considered as desiring to continue their subscription, and are charged for the new volume according.

Our present number will be sent to many gentlemen who are not subscribers, and who we have known formerly acquainted with, or who have been recommended to us by their friends. Such will please consider the reception of the paper as an invitation to them to subscribe for it. If they do not desire to do so, however, they will do us a favor after reading, in handing it to some friend that may.

Since our last acknowledgements we have received the following:

An address delivered before the Lancaster Agricultural Society, by Mr. M. P. CRAWFORD, and for which we are indebted to the polite attention of Jas. H. WITHERSPON, Esq.

An address to the North Carolina State Agricultural Society, by the Hon. K. RAYMOND, who will accept our thanks for a copy.

HYDROPATHIC REVIEW. To Messrs. FOWLER & WELLS we are indebted for No. 3 of this excellent work, the publication of which has ceased; and "Life Illustrated," we understand takes its place. This is spoken highly of, we have not received it.

TRANSACTIONS OF THE NEW HAMPSHIRE AGRICULTURAL SOCIETY, 1853.—To JAS. Q. ADAMS, Sec-

retary, our thanks are due and heartily tendered for a handsomely bound copy of some 400 pages of the transactions. Very interesting, and most creditable to the State. Why can't every other State do the same, are they too much ruled by the *learned profession* to descend to such small *unscientific* matters?

The Whole World.

The splendid Mammoth Pictorial of *The Whole World*, having already over 150,000 subscribers, is only one dollar a year, by mail, and each subscriber receives, as a premium, a Gift Ticket, entitling the holder to one share in the valuable property which the proprietor, Prof. J. WOODMAN HART, World's Hall, Broadway, New York, intends to give his subscribers, as soon as a stated number shall be obtained. This is the most stupendous undertaking we have any knowledge of, and one by which every person gets more, than the full worth of the dollar invested, and a valuable present besides. Read the advertisement headed *The Whole World*, which we publish in another part of our paper. Specimen copies of the Pictorial may be seen at this office, or obtained gratis of the publisher, by addressing him, post paid.

For the Farmer and Planter.

EDWARDS, Miss., Oct. 28, 1854.

Dear Sirs:—I have here to-day, a new implement, plow and scraper combined, which upon trial promises to scrape the cotton row, and at the same time to clear all the middle of a $4\frac{1}{2}$ foot row. The inventor has had it here before, but at my suggestion took it to a mechanic to vary a trifle so as to make the tool to scrape a high or a low bed. It may yet be improved, but I know not how.

The draft of it will strike many as being too heavy, but remember it is used on land before it has become hard or grassy, and that scraping of itself is light work. One planter has engaged 100, having witnessed its performance; others from 5 to 20. I take enough to do my farm, though having a supply of the Grissi scraper.

I give this early notice, that the spirited may order one or two, test them, and then order in time for the crop. We have tried it, here on old beds pulling up stalks, and are satisfied.

The inventor will send 4 or 500 to Vicksburg by the first of December, and he will have some subject to my order. His price will be not less than eight, and not over ten dollars, owing to manufactures prices. Moulds of both plow and scraper will be best steel. I hope some one will order from Carolina, Georgia, and Alabama, one or more, try them, and then report in time.

The inventor was an overseer.

Yours truly, M. W. PHILIPS.

Dear Sirs:—Whilst writing the preceeding

lines about the plow and scraper, I thought to use this leaf in giving you something of our crops. Within twenty days I have visited two Baptist Associations, one in Madison and one in Jefferson counties, travelling on different roads, about 200 miles, and seeing citizens from some eight or ten counties, and inquired freely as to crops. I find many to say half crops and less, some to say two thirds, and not a man to say full crops. I have heard of but one who is making wheat is termed a full crop, but he is a rusher. I am told by those on whom I can rely, that crops in the swamp are as they are here—making more cotton per hand of course, but only some relative crop. Three of my family are engaged in planting in the swamp—six bales will be the crop, twelve last year.

Corn is now selling at \$1 by hundreds of bushels, and at \$1.25 to drovers. Some of our best planters, who have never bought corn since the first year, will not be able to fatten hogs without buying corn; others have to buy. When 100 acres yield only 450 bushels, scarce times are at hand, and there are even worse crops than this. My own crop of cotton is far better than the average, but over one-third less than my land usually produces, are field as 8 is to 13. Corn crop not much over one-half of a crop compared with last year. Last year with 115 acres, including fences, out places, &c., I gathered 120 wagon loads; this year only 80—wagon body of box order, holding by measure, over 50; the other some 30 to 35, and 10 acres more land in culture. We have an immense quantity of fodder and corn drilled, which in feeding mules and oxen, will save corn. Potatoe crop a failure. Peas not as many as planted, the vines dying soon after blooming. I am sure these are facts in central Miss., about the best planting country, and in the best latitude for cotton. Some of my friends making 10 to 18 bales, (large talk; but true,) are not now making over 5 to 10 or 12 at the utmost limits and these are 800 to 1000 bales more. Must not cotton advance, though Sebastopol is not taken, it must be anything whigeral? Commission merchants admit the short crop in the Southern portion, but Cherokee they say it is not. How is it in Carolina and Georgia. Yours, &c. M. W. P.

Cure for Scratches.—Mix one ounce of chloride of lime and one quart of water; wash the parts well, after which apply white lead ground in oil. This has never failed to cure.—*Ex.*

The better animals can be fed, and the more comfortably they are kept, the more profitably they are—all farmers work for profit.

Hand Thrashing Machine.

Fig. 1.

Among the most novel and interesting machines exhibited in the agricultural department of the great Crystal Palace, now open in Dublin, Ireland, is a hand thrashing machine, the invention of a clergyman, Rev. A. Willison, of Ayrshire. We present two engravings of this machine, a perspective and a section.

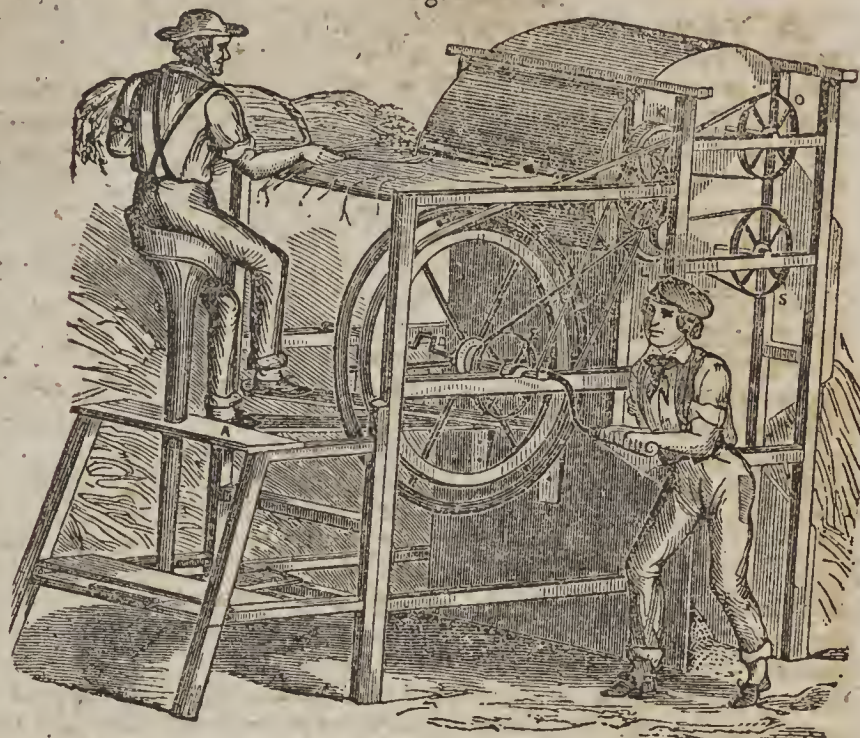
In the common thrashing machine, the essential feature of the separating apparatus consists of a cylinder, known as the "drum," fitted with projecting beaters, placed longitudinally upon the cylinder. Such a revolving drum is contrived, so that its projecting arms shall strike the grain as it passes between the rollers. Mr. Willison substitutes for the drum a species of flattened beater, revolving on a shaft, and giving the grain two distinct thrashing blows at each revolution. The beater is made of a flat rectangular board attached to a shaft, as delineated in fig. 2 in our engravings.

This thrashing machine possesses the advantage of being worked by hand as well as by horse or steam power. A single attendant can accomplish the whole process of thrashing. The separation of the grain from the straw is effected more economically, and with less expenditure of power than hitherto, by reason of the unthrashed grain being struck on both sides alternately.

Fig. 1 is a perspective elevation of a machine arranged to be worked by human power; and fig. 2 is a corresponding side view of the same.

The framing of the machine is an ordinary rectangular erection, having a platform, A, at one end, with an adjustable seat, B, for an attendant, who feeds the unthrashed grain into the machine, and at the same time aids the thrashing action with his feet. He accomplishes the latter by working the two treadles, C, which are linked to a pair of cranks on the winch-shaft, D, which is mainly turned by a separate attendant, this shaft carries a pulley E, from which a cross-band, F, passes to a pulley on the end of the lower fluted feed-roller, G. The same shaft also carries a large pulley, H, from which a band passes to a pulley on the end of the shaft of the upper beater, J; this shaft having upon it a spur-wheel gearing with a similar wheel on the shaft of the lower beater, M. In this way the two beaters simultaneously revolve at the same rate, but in reverse directions. The shaft of the upper beater has also a pulley, with a band passing from it to the pulley, O, on the end of the shaft of the large upper straw-clearing cylinder, P. The lower roller, Q, is similarly driven by a pulley on the bottom beater shaft, by a band passing to the pulley, on the roller shaft.

Thus, as the grain is fed in it is drawn forward by the grooved rollers, G, and carried into contact with the pair of beaters, J, M; and as these beaters revolve at a high rate, they alternately strike the grain upwards and downwards.



Each edge of the beaters crosses the horizontal line of traverse of the straw to a short extent (variable at pleasure,) so that, as the unthrashed straw passes along, the grain is most effectually separated or struck off by the alternate and opposed actions of the beater edges. The beaters are keyed, so as to work constantly at right angles to each other. Hence the two beaters work into each other, as it were, like wheel-teeth, and subject the grain to a most severe thrashing action. As the grain is detached, it falls down, clear of the machinery, into its proper receptacle, at the bottom of the casing machine; whilst the cleared straw passes off to the back of the machine, between the constantly revolving rollers, P, Q.

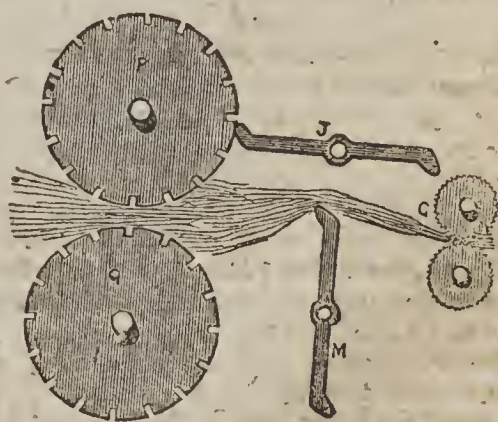


Fig. 2.

Buckeye Bread.—Take a pint of new milk, warm from the cow, add a teaspoonful of salt, and stir in fine Indian meal until it becomes a thick batter; add a gill of fresh yeast, and put it in a warm place to rise. When it is very light, stir into the batter three beaten eggs, adding wheat flour until it has become of the consistence of dough; knead it thoroughly, and set it by the fire until it begins to rise; then make it up into small loaves or cakes, cover them with a thick napkin, and let them stand until they rise again; then bake in a quick oven.

Harvest, the Past Year from Extra Early Seeding

Mr. Editor,—I promised you in a former communication to give the result at harvest of a field of wheat sowed from the 25th of August to the 15th September inclusive. I proceed to do so, by stating what you already know, from sad experience that it was quite a disastrous year for wheat, on account of the rust. I had 47 acres sowed as above stated, and reaped from them 946 bushels of good wheat, making an average of a little over 20 per acre. It is fair to state that the field was badly gleaned, by hirelings, and badly threshed by a machine out of order. I have no hesitation in stating, however, from the experiment, that no one need fear early seeding, as early as August, who uses guano or who has very rich land. In the part experimented on the rust injured me much less than any other part of my field; and I doubt exceedingly if I had not feared the frost of spring, and grazed until the 27th of February, whether I should have been hurt by rust, although, seeding as I did a late variety of wheat. I will state here what I noticed in regard to frost injuring wheat, as regards luxuriance, &c. In the above experiment there was a bed of wheat from same cause, much more luxuriant than any other, so much so, that the cattle, horses and sheep, refused to eat it. That bed stood the frost of winter and the late ones of spring better than any in the field, and yielded in proportion to 47 bushels per acre.

If you can give me any experience on grazing as to its benefits or injury to the crop, you will confer a favor. If no injury is sustained on behalf of suffering sheep in winter, I would say graze.

Yours truly, &c.

WAT H. TYLER.

Wilton, Westmoreland, October, 1854.

From the American Cotton Planter. Corn Beer.

DR. CLOUD—Dear Sir: I see in the *Southern Cultivator*, some person asks how to make good Beer. You may say to them that if they will take one pint of common Corn boiled soft, and one pint of Molasses, and put to them one gallon of water, or the same proportion of any amount of water, (they may add Ginger or any thing to give flavor,) they can have Beer good enough for any person. The same corn will answer for two or three times making.

Sweet Potatoe seed may be kept perfectly sound during winter by elevating the ground a little and covering four or five inches thick with cotton seed, and scaffolded to keep dry.

Respectfully, C. M. ROBERTS.

Lindsey's Creek, Miss., Feb. 13, 1854.

To prevent Skippers in Hams—Sew them up in bags made of cotton osnaburges, and white wash them or size them with a thick starch, made of flour or meal; this will prevent the fly from depositing the eggs which form the skippers, which is done in our mild climate the first mild weather in January or February. The hams should be taken at once from pickle and secured, if this precaution is not observed, in

smoking, the skipper eggs will often be found, even when every other precaution has been observed.

The bite of a Rattlesnake.—The most simple and convenient remedy, says a correspondent of the *Marion Messenger*, I ever heard of, was *gum*. A piece the size of a hickory nut, dissolved in water and drank, or chewed and swallowed, is sufficient. I have a good authority for saying it has been tried many times on men and dogs, and that they have invariably recovered. I know of some planters whose hands are exposed to be bitten by rattlesnakes, who always have them provided with it in their pockets, and they have several times found use for it.

Bad Air in Wells.—Never go down into a well which has been at any time out of use; or if it be deep, without trying the air in it. This may be done by lowering a lighted candle—if it burns, there is no danger; but if it goes out, the air is bad, and death would be the consequence of venturing into it. It is said that the air may be speedily corrected by putting into the well, say from a bushel to a bushel and a half of quick lime, which will absorb the carbonic acid gas—the agent alike deleterious to comfort and respiration.

A strong horse will work all day without food, but keep him at it and he will not last long.

LIST OF PAYMENTS RECEIVED.

NAMES.	POST OFFICES.	AM'T.
H. S. Middleton,	Mt. Carmel, S. C.	1 00
J. B. Skepper,	Conwayboro', "	1 00
Richard Watson,	White Hall, "	1 00
Maj. E. Griffin,	Twelve Mile, "	1 00
J. H. Tucker,	Charleston, "	1 00
J. B. Tillman,	Red Hill, "	2 00
Col. H. G. Johnson,	Line Creek, "	1 00
Levi Harris,	Fair Play, "	2 00
J. D. W. Richmond,	Black Mt. (vols. 5, 6.)	2 00
Maj. R. A. Springs,	Rock Hill, "	1 00
Capt. H. W. Campbell,	" " "	1 00
E. Hutcherson,	" " "	1 00
George Stergis,	" " "	1 00
Rev. ——— Hill,	" " "	1 00
Wm. Stergis,	" " "	2 00
J. L. N. Smith,	Pendleton, "	1 00
A. F. Lewis,	" " "	1 00
Dr. J. F. McCombs,	Calhoun's Mills, "	3 00
Dr. Sam'l Marshall,	White Hall, "	1 00
Benj. Holland,	Townville, "	1 00
J. E. Peay,	Longtown, "	2 00
M. L. Owings,	Bella Store, "	95c
S. W. Spearman,	Shen Springs, "	1 00
Dr. R. C. Gilpin,	26 Station, (vols. 1, 2, 3, 4, 5)	5 00
L. W. Dart,	Bull Swamp, "	1 00
Bratton Dixon,	Horse Shoe, "	2 00
L. N. Jones,	Clayton, Georgia,	1 00
Jesse Jones,	" " "	1 00
Col. Peters,	Atlanta, "	1 00
Jas. H. Hoskinson,	Coosa, "	1 00
J. W. Watts,	Cartersville, "	1 00
Capt. L. C. Mitchell,	Rome, "	1 00
J. F. Pinkston,	Cabbahatchi, Miss.,	1 00
H. P. Cook,	Chickome, "	1 00
W. W. White,	New Albany, (vols. 4, 5.)	2 00
George Pope,	Thomastown, "	1 00
Wm. Smith,	Huntsville, Texas,	1 00
James M. Calhoun,	Richmond, Ala. (vols. 6, 7.)	2 00